

**Graduate
Catalog
1994-96**

Bloomsburg University of Pennsylvania

A Member of the State System of Higher Education

Graduate Programs

Master of Arts

Art Studio
Art History
Communication Studies

Master of Business Administration

Master of Education

Biology
Business Education
Curriculum and Instruction
Elementary Education
Reading

Master of Science

Audiology
Biology
Early Childhood Education
Education of the Deaf/Hard of Hearing
Exercise Science and Adult Fitness
Instructional Technology
Nursing
Special Education
Speech Pathology

Cooperative Doctoral Program in Education

Supervisory Certificate Programs

Communication
Curriculum and Instruction
Early Childhood Education
Elementary Education
Foreign Language
Mathematics
Reading
School Health Services
Science
Social Studies
Special Education

Bloomsburg University is committed to Affirmative Action and Equal Opportunity. Minorities, women, and other protected class members are urged to pursue educational and employment opportunities at Bloomsburg University.

Bloomsburg University reserves, for itself and its departments, the right to withdraw or change the announcements made in this catalog.

THE SCHOOL OF GRADUATE STUDIES



1994-96 Catalog

Prepared by the School of Graduate Studies

Bloomsburg University of Pennsylvania

State System of Higher Education

Graduate Calendar

Fall Semester 1994

August 29	Classes begin at 8 a.m.
September 5	Labor Day - No classes
November 23	Thanksgiving recess begins at 1 p.m.
November 28	Classes resume at 8 a.m.
December 10	Classes end
December 12	Final examinations begin
December 17	Final examinations end
December 17	Commencement

Spring Semester 1995

January 16	Semester begins
	Martin Luther King Day - No classes
January 17	Classes begin at 8 a.m.
March 11	Spring break begins at noon
March 20	Classes resume at 8 a.m.
April 13	Spring weekend begins at 10:00 pm
April 17	Classes resume at 6 p.m.
May 6	Classes end
May 8	Final examinations begin
May 13	Final examinations end
May 13	Commencement

1995 Summer Sessions

May 30	Sessions 1 and 4 begin
June 9	Session 4 ends
June 19	Sessions 2 and 5 begin
July 4	Independence Day - No classes
July 7	Sessions 1 and 5 end
July 10	Sessions 3 and 6 begin
July 28	Sessions 2 and 6 end
August 18	Session 3 ends

Fall Semester 1995

August 28	Classes begin at 8 a.m.
September 4	Labor Day — No classes
November 22	Thanksgiving Recess begins at 2 p.m.
November 27	Classes resume 8 a.m.
December 9	Classes end
December 11	Final examinations begin
December 16	Final examinations end
December 16	Commencement

Spring Semester 1996

January 15	Semester begins
	Martin Luther King Day - No classes
January 16	Classes begin at 8 a.m.
March 9	Spring break begins at noon
March 18	Classes resume at 8 a.m.
April 4	Spring weekend begins at 10 p.m.
April 8	Classes resume at 6 p.m.
May 4	Classes end
May 6	Final examinations begin
May 11	Final examinations end
May 11	Commencement





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THE UNIVERSITY

Graduate programs at Bloomsburg University of Pennsylvania will provide you with the challenge and the opportunity to use your skills and talents to the fullest. You will be encouraged to set high goals and to work hard to achieve those goals. Our programs are designed to help you attain excellence in your chosen field.

In return, Bloomsburg will provide you with the opportunity to grow and the chance to reach your full potential.

Graduate studies at Bloomsburg — in the arts, sciences, or humanities — stress critical thinking and creative problem solving. As a graduate student, you will be encouraged to engage in research and to write a thesis as part of your program of study.

Whether studying full time or part time, you will be prepared to provide leadership in your profession and to make important contributions to society.

Bloomsburg University of Pennsylvania is one of 14 universities in the Pennsylvania State System of Higher Education. We have the best of both worlds: our association with the State System gives us the resources and the ability to provide excellent undergraduate and post baccalaureate education; yet we're small enough to treat every student as an individual.

We offer 64 undergraduate programs and master's degree programs in 18 fields of study. In cooperation with Indiana University of Pennsylvania, Bloomsburg offers a doctoral program in elementary education. Educational supervisory certificates are also available. The School of Graduate Studies is a member of the prestigious Council of Graduate Schools.

Granted university status in 1983, Bloomsburg is organized into three colleges: Arts and Sciences, Business, and Professional Studies; and two schools, Graduate Studies and Extended Programs.

Location and Environment

The Town of Bloomsburg is located along the banks of the Susquehanna River, about 80 miles north of Harrisburg. You'll find a delicate balance in Bloomsburg — the kind of country living and friendliness you'd expect from a community of 12,000, along with the cosmopolitan flavor of a university campus of 6,700 full-time students from both rural and urban areas throughout the Commonwealth and across the nation. The School of Graduate Studies has approximately 600 students.

Bloomsburg is served by two interstate bus lines, and two community airports are within an hour's drive.

Mission

The Bloomsburg University School of Graduate Studies is committed to maintaining affordable opportunities for qualified students of diverse background to study in a variety of high quality, post-baccalaureate programs. The essential component of these programs is to foster and maintain an academic environment that stresses critical thinking, scholarly activities, enhancement of leadership ability, cultural diversity

Bloomsburg University is accredited by the

- Commission of Higher Education for the Middle States Association of Colleges and Schools
- National Council for the Accreditation of Teacher Education
- National League for Nursing
- Council on Education of the Deaf
- American Speech-Language Hearing Association
- Council on Social Work Education.

Programs have been approved by the Pennsylvania Department of Education and the State Board of Nurse Examiners.

and utilization of information technologies.

Goals to Achieve the Mission of the Bloomsburg University School of Graduate Studies

- 1) Enhance financial resources for students and faculty by seeking grants, gifts, research awards and contributions.
- 2) Enhance recruitment of women, minorities and students of diverse cultural background.
- 3) Encourage and facilitate international exchange of graduate faculty and students.
- 4) Plan programs to meet the current and future needs of individuals and agencies within the university's service communities.
- 5) Plan programs to incorporate current and future global and environmental issues.
- 6) Provide periodic review of programs to achieve and maintain high quality programs.
- 7) Incorporate state-of-the-art information technologies in all aspects of academic activities.

Student Life

Bloomsburg provides limited on-campus graduate student housing during the regular school year. In addition, there are many fine places to live in our community. The university's Residence Life Office maintains a list of off-campus housing. Meals are available for graduate students throughout the school year at our newly-renovated dining facility, Scranton Commons, or you may opt for the newly-renovated Kehr Union snack bar. Residence halls are open to graduate students during the summer sessions. For more information about housing, contact the Director of Residence Life, Elwell Residence Hall, Bloomsburg University, Bloomsburg, PA 17815, (717) 389-4089. Complete information about graduate student life at Bloomsburg University can be found in the Graduate Student Handbook which will be available upon acceptance to graduate school.

ACADEMIC SUPPORT SERVICES

Harvey A. Andruss Library

The Harvey A. Andruss Library houses more than 335,000 bound volumes, 1.75 million microtexts, and 1,600 current periodicals. The library also has state documents, a collection of more than 5,600 phonograph records, a pamphlet file of approximately 7,600 items, a juvenile and young adult book collection, and a special collection of first editions, autographed copies, and illustrated books. Online access to more than 400 information databases through a library CD-ROM local area network, Firstsearch and DIALOG is available. Databases cover most fields and are particularly thorough in the areas of education and business for bibliographic citations to journal articles.

Andruss Library provides 450 study stations on three levels. The third level has been designated the "Quiet Level" and is furnished with individual carrels and study tables. Students are requested to assist in maintaining this floor as a quiet study area. Eating and drinking are limited to the Tiffany Room on the ground level.

Library faculty at the Reference Desk are available during most library hours to answer questions, assist students searching for information and resources, and advise regarding research projects.

Library orientation through interactive video is available. The charge for photocopying is 5 cents, and the charge for microform copying is 10 cents (paper copy) and 25 cents (microfiche copy). Assistance in using the library's Public Access Online System (PALS) automated catalog is available at the Reference Desk.

Institute for Comparative and International Management Studies

The Institute for Comparative and International Management Studies (ICIMS) has been created to fulfill Bloomsburg University's missions and goals through sponsorship and initiation of activities aimed at increased understanding of cross-cultural and comparative management issues.

The institute initiates, coordinates, and administers joint degree programs with overseas universities in business administration; sponsors management research projects within the United States and at overseas sites; provides consulting services and workshops in all areas of management; and develops and administers quality executive development and training programs as required by a particular country.

Curriculum Materials Center

The basic objective of the Curriculum Materials Center is to locate, acquire, catalog, and make accessible curricular and instructional materials to preservice and inservice teachers. The resources housed in the center include elementary and secondary textbooks, a multicultural curriculum materials collection, curriculum guides, games, instructional materials kits, tests, and computer software. A cluster of Macintosh microcomputers and a laser printer are also available.

Reading Clinic

The Reading Clinic offers free diagnostic evaluation of reading skills of school-age children and adults. Free remedial tutoring is also provided (Saturday mornings) on a space-available basis. Consultation with the parents of school-age children is included in the evaluation process. The services of the clinic are available September through August.

Speech, Hearing, and Language Clinic

The Speech, Hearing, and Language Clinic provides services to students, faculty, staff, and the community. Available services include evalu-



ation and therapy for speech, voice, language, and fluency; speech reading and auditory training for the hearing impaired and parent counseling. Audiological assessment includes special site of lesion testing, hearing aid evaluations, and fitting.

Institute for Interactive Technologies

The Institute for Interactive Technologies (IIT) provides research, training, education, and entrepreneurial assistance to solve training and operational problems that occur in education and industry through the application of various interactive technologies. The IIT designs, develops, and produces interactive technology-based applications that include computer-based interactive videodisc, and digital technologies such as CD-I, DVI and Quicktime. The IIT also provides workshops for interactive video training and opportunities for assistantships for graduate students in the Master of Science program in instructional technology.

Television and Radio Services

The Office of Television and Radio Programs and Services provides assistance with the production of instructional and other campus-oriented television production. While priority is given to academic endeavors, the office also has a strong commitment to community service through program production and other services. The office is also administratively responsible for WBUQ, the student-operated campus radio station, 91.1 on the FM dial.

The facility houses three television studios, ranging from a sophisticated multi-camera studio for broadcast-level production, to a single-camera VHS studio where faculty and students can easily videotape projects in support of classroom assignments or evaluations. Also available are portable equipment, several video editing rooms, an audio recording studio, a video copystand, and a video paintbox device.

The office is the university's resource center for satellite videoconferencing, provides on-location taping of lectures, presentations and other academic activities, and can record informational programs off-air and off-satellite. Videotapes can be copied through the office (copyright permitting) and tapes recorded in incompatible overseas formats can be converted to the American television system.

The office also operates the campus video message center providing constantly updated information to television monitors located in several public areas on campus, as well as over BUTV, the university's cable television channel, which can be seen throughout the Bloomsburg and Berwick areas. The message center is suitable for the posting of class schedule changes, campus events, non-profit group activities, and general announcements and can be accessed by calling 389-BUTV.

Audio Visual Resources

Audio Visual Resources (AVR) provides Bloomsburg University faculty and staff with an array of audio visual equipment, materials, and services. Available equipment includes video and 16mm film playback, audio equipment, 35mm and Polaroid cameras, flashes and accessories, slide projectors, overhead and opaque projectors, screens, easels, and many other useful items.

The AVR staff can arrange for film delivery and set-up in classrooms for faculty members as well as delivery of other audio visual equipment.

There is also a repair center for university-owned audio visual equipment.

The facility houses an auto-tutorial lab where faculty may deposit audio visual materials for independent study by students. The lab accommodates the viewing of films, videos, slides, audio cassettes, and records. There is also a photo copystand area where materials can be photographed for the creation of slides.

Additional resources include: transparency machines, dry presses, posterboard mounting materials, and lamination services. The area houses a sign and poster-making unit that can instantly generate poster-size displays from letter-sized originals. If needed, the AVR staff can assist in the creation of the original document.

Academic Computing Facilities

Academic computing facilities are located throughout the campus. Central clusters of general access computer labs and work areas are located in Ben Franklin Building, McCormick Human Services Center, Hartline Science Center, Sutliff Hall and Kehr Union. Computer classrooms and specialized labs are located in Sutliff Hall, Bakeless Center, Navy Hall, Old Science Hall and McCormick Center.

The student computer lab in McCormick room 1148 houses an AT&T 3B2/1000 minicomputer with PC computers directly connected to it. Room 1146 has a cluster of PC 386 and 486 computers.

The student work areas in Ben Franklin are:

Room 1 — PC and Macintosh computers networked to file servers. The PCs can be used to connect to the Unisys 2200 mainframe computer.

Room 2 — Networked Macintoshes.

Room 3 — A cluster of Sun workstations for specialized use.

Laser printers are found in most of the labs and classrooms.

Computer classrooms are available for general student use when they are not being used for a class. All computers in labs and classrooms are networked. These PC and Macintosh computers have access to word processing, spreadsheet and other application programs that are available on network file servers. The PCs and Macs are networked, thus having access to the mini- and mainframe host computers as terminal users. Students can connect to these host computers from dorms and off-campus by using modems with their microcomputers.

Work areas are monitored by student consultants who are available to help students with problems using the equipment and basic software. The schedules of current open hours for labs and classrooms are posted at each location.

The AT&T 3B2/1000 is a minicomputer running the Unix operating system. All students can request an account on this computer. Students can send and receive electronic mail from others on campus and from off campus using the SSHenet and Internet. It is accessible from the networked PCs and Macs, and through dial-in modems. This system has FORTRAN, COBOL, Ada, PL/I, Minitab and the Oracle database.

The Unisys 2200 is the administrative computer and is used for statistical analysis using SPSS and for FORTRAN programming. This computer can be accessed by networked PCs and dial-in modems. It also supports the PALS online library catalog and the student registration process.

ADMISSION INFORMATION

Entrance requirements to graduate studies at Bloomsburg University vary according to the program to which you apply. Details of specific degree program requirements are discussed under the program descriptions presented later in this catalog.

Minimal Entrance Requirements

Minimal requirements for applicants for graduate study include an undergraduate quality point average (Q.P.A.) of at least 2.5 on a 4.0 scale and possession of a baccalaureate degree from an accredited college or university. In addition, most applicants will be required to take either the Graduate Record Exam, Miller Analogies Test, National Teacher Examination, or Graduate Management Admissions Test as required by the program.

Application

To pursue any graduate program of study, either degree or non-degree, an individual must complete an Application for Admission to Graduate Studies, pay the \$25 application fee, and have an official transcript of all undergraduate grades sent to us directly from the institution from which the individual graduated. In addition, an individual seeking admission to a degree program may need to fulfill any additional requirements established by the department which offers the degree program. The application with the \$25 fee is sent to the Business Office, Waller Administration Building. Transcripts and other supporting documentation are to be sent to the Office of Graduate Studies and not the department to which the student is applying. Completion of the admission process is required before the student is permitted to enroll for classes. Therefore, it is advised that prospective students complete the application as soon as possible prior to the semester in which they intend to enroll. Applications that are not completed in one year are destroyed.

For more information regarding admission to graduate studies and



an application form, contact the Office of Graduate Studies, Room 109, Waller Administration Building, Bloomsburg University, Bloomsburg, PA 17815; telephone (717) 389-4015.

Foreign Applicants

Individuals from foreign countries must complete a separate Graduate Admissions Application for International Students. This application form is available from the Office of Graduate Studies, Room 109, Waller Administration Building, Bloomsburg University, Bloomsburg, PA 17815, U.S.A. International applicants must have the results from the Test of English as a Foreign Language (TOEFL) and the Test of Spoken English (TSE), if available in the country of residence, submitted directly to the Office of Graduate Studies from the Educational Testing Service, P. O. Box 6151, Princeton, NJ 08541-6151, U.S.A. Bloomsburg University requires a minimum score of 550 on the TOEFL. Results from the test taken more than two years prior to the date submitted will not be considered. Acceptance to the university as a graduate student does not constitute a guarantee of financial assistance. It is rare for international students to receive a graduate assistantship during their first year of study.

All international applicants must have their applications complete at least four months prior to the start of the semester for which they are applying.

Testing

Graduate students will be required to complete any testing required by their department, i.e., Miller Analogies Test, Graduate Record Examination (GRE), National Teacher Examination (NTE), and Graduate Management Admissions Test (GMAT). Any fees for testing must be paid by the student.

Graduate Student Categories

Graduate students at Bloomsburg University may be admitted into one of the following four categories:

Non-Degree (Category 510)

Persons who desire graduate level university instruction, but do not intend to earn a master's degree, may be admitted as non-degree students provided they present official transcripts denoting graduation from an accredited undergraduate college or university. This is the category for students who are auditing a course or enrolled in the supervisory certificate program. Non-degree students may apply to the Graduate School for transfer to provisional or regular status. However, no more than 12 semester hours earned as a non-degree student may be later applied toward a master's degree, except when special permission is granted by the Assistant Vice President for Graduate Studies and Research.



Provisional (Category 520/530)

A student may be admitted as provisional in a degree program when the student possesses a baccalaureate degree but does not meet the criteria for regular admission. The student may have an undergraduate scholastic record which shows promise, but less than the 2.5 Q.P.A. required for regular admission. The reasons for a student's provisional status will be specified in the letter of admission. A provisional student must earn a minimum Q.P.A. of 3.0 in the first 6 to 9 semester hours of graduate study at Bloomsburg University in order to be eligible for regular student status. If this Q.P.A. requirement is attained, transfer to regular student status is automatic upon certification by the student's adviser that all deficiencies are corrected. If not attained, the student is subject to dismissal procedures.

Regular (Category 540)

A regular graduate student is a degree-seeking student who meets all criteria for regular admission to a program of the student's choice. The student must possess a baccalaureate degree from an accredited college or university; must have an undergraduate Q.P.A. of at least 2.5 on a 4.0 scale; have scores on the Graduate Record Examination (GRE), Graduate Management Admissions Test (GMAT), Miller Analogies Test (MAT), or National Teachers Examination (NTE) that are acceptable to the program of the student's choice; have met all the criteria established by the degree program; and be under no obligation to make up deficiencies. Only a regular graduate student is eligible for admission to candidacy for a master's degree (see details elsewhere in this catalog). Regular graduate students must maintain a minimum Q.P.A. of 3.0. If a regular graduate student is not admitted to master's candidacy after completing 15 semester hours, the student may be transferred to non-degree status or be subject to dismissal procedures at the discretion of the Assistant Vice President for Graduate Studies and Research.

Degree Candidate (Category 550)

Upon admission to candidacy for a master's degree, students are placed in a new category. If a student does not maintain a 3.0 Q.P.A. or if the student does not complete the graduate program in six years from the date of admission to graduate school, then the student can be transferred to non-degree status or be subject to dismissal procedures. Exceptions to this policy are with the approval of the Assistant Vice President for Graduate Studies and Research.

Readmission

If a graduate student has not enrolled in any graduate course for a two-year period, the student's record is marked "withdrawn" and placed in the inactive files. A new application and \$25 fee must then be submitted for reactivation.

Graduate Courses in the Senior Year

Current Bloomsburg University undergraduates may register for graduate courses under certain conditions. First, they can only take a graduate course during the semester they will complete their undergraduate degree, and they must need less than a full load of classes to graduate. Second, a recommendation from their undergraduate adviser is required. These students must follow the regular graduate application process.

Tuition and Fees**Pennsylvania residents**

Less than 9 semester hours	\$164 per semester hour
9-15 semester hours	\$1,477 per semester
Over 15 semester hours	\$164 per semester hour

Out-of-State residents

Less than 9 semester hours	\$289 per semester hour
9-15 semester hours	\$2,598 per semester
Over 15 semester hours	\$289 per semester hour

Student Union fee

One to four semester hours	\$15
Five to eight semester hours	\$30
Nine or more semester hours	\$60

Student Health Service

Nine or more semester hours	\$37 obligatory
Eight or less semester hours	Not required

Academic equipment

One to 11 semester hours	\$5.50 per semester hour
Twelve or more semester hours	\$62 per semester

Student Union Operational Fee

One to 11 semester hours	\$2 per semester hour
Twelve or more semester hours	\$62 per semester

Recreational

One to four semester hours	\$15
Five to eight semester hours	\$30
Nine or more semester hours	\$60

Graduation and diploma

\$10
(does not cover cost of renting academic regalia)

Late registration fee

\$10

Optional activities (use of recreational facilities)

Two semesters	\$35
One semester	\$25
Summer sessions	\$2 per week

All students taking nine or more semester hours and all international students are required to have health insurance. Students may also opt to enroll in the university's student health plan. For more information, contact the Bloomsburg University Health Center, (717) 389-4451 or 389-4452. **Please be aware that all fees are subject to change without notice.**

Audits

You may audit a graduate course for self-improvement. You must follow the regular graduate application process, pay all the required fees, and obtain the approval of the Assistant Vice President for Graduate Studies and Research. When you audit a course, you are not required to take tests. Upon completion of an audited course, a grade of V is recorded on your transcript.

Off-Campus Courses

Bloomsburg often offers graduate courses at other locations in the Commonwealth. These graduate courses are open to students who are not enrolled in a master's program at Bloomsburg University; however, these students must obtain approval from the Assistant Vice President for Graduate Studies and Research to enroll in these classes and must complete an application for admission to Graduate Studies prior to the completion of the semester in which they are enrolled.

Refunds

All withdrawals require the approval of the Assistant Vice President for Graduate Studies and Research. Immediately after withdrawal, a letter requesting a refund must be directed to the Assistant Vice President for Administration, Business Office, Bloomsburg University.

If you must withdraw from a course, you might receive a partial refund of course fees, depending on when you withdraw. Except for minimim forfeit of advanced deposits, refunds for tuition will be based on the following schedule if applicable after the first full class day:

First through Second Weeks	80 percent
Third Week	70 percent
Fourth Week	60 percent
Fifth Week	50 percent
After Fifth Week	No refund

A student who does not attend class for which he or she has been properly scheduled and does not submit a request to add/drop/withdraw courses by the appropriate dates is liable for billing and will not be eligible for refund.



Financial Help/Assistantships

Bloomsburg University provides several options to help graduate students financially.

Graduate assistantships are available for students pursuing a master's degree. The number of assistantships in any particular program or department is variable and subject to change according to university needs. Stipends are awarded by the Assistant Vice President for Graduate Studies and Research upon the recommendation of departments having graduate programs. Stipends are available during the academic year and the summer sessions. Most students are granted assistantships for one semester at a time. A few graduate students, however, are granted assistantships under a two-semester contract.

Assistantships are either "half-time" which require 20 hours of work each week or "quarter-time" which require 10 hours of work each week. Both types of assistantships carry either a full or partial tuition waiver. "Half-time" assistants receive full tuition waver. "Quarter-time" assistants pay for two semester hours of graduate work. In addition, half-time graduate assistants receive a stipend of \$2,117.50 for the semester while quarter-time graduate assistants receive a \$1,058.75 stipend for the semester. Summer stipends are \$825.24.

As part of the university's commitment to Affirmative Action, 10 graduate assistantships are targeted for minority graduate students. Blacks and other persons of color are encouraged to avail themselves of the opportunity to apply for these assistantships. The requirements and conditions of appointment for these assistantships are identical to regular assistantships.

Applications for regular and minority graduate assistantships are available at the Office of Graduate Studies and should be submitted to the department or program to which you are applying. Upon award of a graduate assistantship, you will be provided with the document "Criteria for Graduate Assistantship" by the Office of Graduate Studies. This document describes Graduate School policies for the administration of assistantships.

Other Forms of Aid

Some federal fellowships may be available in selected fields of study. Program coordinators should be contacted with regard to these. In addition, the Pennsylvania Higher Education Assistance Agency Loan Program is available as is the student work-study program. For more information regarding these forms of financial aid, contact the Office of Financial Aid, Ben Franklin Hall, Bloomsburg University, Bloomsburg, PA 17815.



ACADEMIC POLICIES

Responsibilities of a graduate student at Bloomsburg University include:

- Each student will take the initiative to be aware of all university policies as described in this catalog and in class schedules.
- Each student will take responsibility for satisfying requirements for graduation in his or her field.
- While graduate advisers and staff will assist students, decisions on courses and other matters rest with the student.
- Each student should identify any undergraduate weakness or deficiency and discuss them with graduate advisers. (Such weaknesses might include, but are not limited to, not having proper undergraduate prerequisites for the desired graduate program.)
- Students are expected to attend all classes and take all examinations. Absences from graduate classes are granted only for urgent and verifiable reasons; students granted an absence from class can expect assistance from professors in making up work or examinations.

Advisers

Students who are provisional, regular, or candidates for a degree, along with students enrolled in the Supervisory Certificate Programs, are assigned graduate advisers.

The duties of the adviser are:

- to serve as a consultant in planning the student's program;
- to help students choose courses;
- to certify the courses students do choose are part of their degree program;
- to endorse the student's application for degree candidacy and graduation (if appropriate);
- and to arrange for a comprehensive examination (if required by the graduate program selected).

Upon acceptance into a program of study, the program coordinator is usually assigned as a temporary adviser. A permanent adviser is selected by the student and temporary adviser, taking into account the student's research and career interests. If this individual accepts the student as advisee, she/he is formally appointed permanent adviser by the Assistant Vice President for Graduate Studies and Research upon recommendation of the department involved.

Non-degree students are not assigned advisers. They may regard the Assistant Vice President for Graduate Studies and Research as their adviser for choosing courses and interpreting academic regulations.

Scheduling, Registration, and Course Information

Students register for graduate courses through the Registrar's Office, except for students in non-degree status who submit their registration materials directly to the Office of Graduate Studies.

A student who does not attend class for which he or she has been properly scheduled and does not submit a request for add/drop/with-

draw courses by the appropriate dates is liable for billing and will not be eligible for refund.

The course load each semester for a full-time student is 12 semester hours (for financial aid purposes, full time is 9 credits and over). For students employed full time, however, the maximum course load each semester is 6 semester hours. For half-time graduate assistants, the course load is 6 to 9 semester hours; for quarter-time graduate assistants, 9 to 12 semester hours.

For summer sessions, the recommended course load is 1 semester hour per week of full-time coursework. (For example, if the summer session is six full weeks, the maximum course load during that session is 6 semester hours).

Credit is measured in terms of semester hours, at the rate of 1 semester hour for 15 hours of lecture/discussion work plus final examinations.

Courses numbered 500 or higher in this catalog (the last three digits of the course number) are graduate courses. Courses numbered lower than 500 that are listed in this catalog are open to both graduate students and advanced undergraduates. Graduate students may apply only 12 semester hours of courses numbered 400 to 500 that are listed in this catalog toward a master's degree.

Transfer of Credits

Graduate students may transfer up to 9 semester hours in graduate courses taken at another approved college or university with the approval of the adviser and the Assistant Vice President for Graduate Studies and Research. The request for transfer of graduate courses must be made at the time of the application for candidacy and submitted on a form for that purpose available in the Office of Graduate Studies.

After formal admission to graduate school, all requests to take and



Grades

Grades for graduate courses are:

- A — Distinguished, scholarly work that exhibits independence and intellectual maturity (4 quality points)
- B — Good (3 quality points)
- C — Fair, acceptable work toward a master's degree program, within limits (2 quality points)
- D — Not acceptable work toward a master's degree program (1 quality point)
- E — Failing work (0 quality points)
- F — Failing grade in thesis/research
- I — Incomplete; work must be completed within four months unless the Assistant Vice President for Graduate Studies and Research extends the period for adequate reason. If the work is not made up, the grade is changed to N, and the student is denied further opportunity to complete the work.
- P — Passing grade in thesis/research

R — Research in progress

W — Withdrawn with approval of the Assistant Vice President for Graduate Studies and Research. *The graduate student must apply to the Assistant Vice President for Graduate Studies and Research for permission to withdraw. If this permission is requested before midpoint of the semester, the grade is W. If the withdrawal is after the midpoint of the semester, the grade is W, providing the student is passing the course, and E otherwise. The Registrar establishes the semester's midpoint.*

V — Audit

CR — Course repeated *A course may be repeated only once.*

To calculate your Q.P.A., follow this process: 1. multiply the number of quality points for each grade by the number of semester hours for that course; 2. add these points; 3. divide this total by the sum of the semester hours for all grades used in your computation. When a course has been repeated, use only the last entry.

transfer graduate credits must be pre-approved by the program coordinator. Students must have taken the course(s) in residence and the content of the course(s) must match the required areas of study in the student's master's program at Bloomsburg. Transfer credit must be capable of counting toward a graduate degree at the institution at which the course was taken. Also, students must have earned a grade of B or higher. Credit for a pass/fail grade is not transferable. In general, workshop format courses are not acceptable in transfer; however, if the workshop fulfills the following requirements, it may be considered for transfer to Bloomsburg University:

- The workshop should consist of 45 contact hours (15 contact hours per semester hour) for a 3-semester hour course;
- The workshop must include exposure to the disciplinary research literature appropriate to the course;
- The workshop must include the opportunity for outside work such as term or research papers or other major assignments appropriate to a graduate course;
- The workshop must be taught as part of a master's degree curriculum of the university at which the course was taken. Professional development workshops are not acceptable.

A maximum of 12 semester hours may be transferred from graduate programs at Bloomsburg University toward a second master's degree.

Repeat of Courses

A maximum of one course in which grades of D or E have been recorded or a maximum of two courses in which a grade of C has been recorded (totalling not more than 6 semester hours) may be repeated upon application to the Assistant Vice President for Graduate Studies and Research. The application shall be approved upon request in writing by the student's graduate program coordinator and department chairperson.

The initial grade remains on the transcript as part of the student's permanent record. The grade of the repeated course is part of the permanent record and is used to calculate the student's quality point average. A course may be repeated only once. A course taken at Bloomsburg University in which a grade of D or E has been earned must be repeated at Bloomsburg University. Although this is a general graduate school policy, individual departments or graduate programs may implement more stringent requirements.

Academic Grievance Procedure

Alleged academic injustices relating to grades or professional conduct should be resolved informally, if possible. The student should first discuss the matter with the concerned faculty member, appropriate chairperson, and college dean or the Assistant Vice President for Graduate Studies and Research. In order for the matter to be resolved expeditiously, the consultation(s) should take place as soon as possible after the alleged incident has occurred. If informal attempts to resolve the matter are unsuccessful, the student should consult with the Assistant Vice President for Graduate Studies and Research who will inform the student of procedures for initiating a formal grievance with the Academic Grievance Coordinator for a hearing before the Academic Grievance Board.

Academic Probation

A graduate student not maintaining satisfactory academic progress may be placed in academic probationary status. Enrollment is limited to a maximum of 9 semester hours for the grading period in probationary status. A student on academic probation is not eligible to hold a graduate assistantship. To be removed from academic probation, a graduate student with a quality point average deficiency must attain the minimum

overall quality point average of 3.0 — as required by the School of Graduate Studies and Research for regular graduate students and degree candidates. A student who attains a 3.0 Q.P.A. or higher for the first grading period in academic probationary status, but does not attain the overall Q.P.A. as required, may be recommended by his or her academic adviser, the graduate program coordinator, and the department chairperson to the Assistant Vice President for Graduate Studies and Research for continuation on probation for one additional grading period.

Graduate students who fail to meet the minimal standards for satisfactory progress will be notified by the Registrar's Office or the Assistant Vice President for Graduate Studies and Research. Failure to request academic probation will result in academic dismissal. Such students may submit a request in writing to their academic advisers to be granted academic probation. Upon recommendation of the academic adviser, graduate program coordinator, and department chairperson, and approval by the Assistant Vice President for Graduate Studies and Research, probationary status will be granted. Exceptions to these procedures under extraordinary circumstances will be by written request to the Assistant Vice President for Graduate Studies and Research.

Academic Dismissal

A graduate student not maintaining satisfactory progress, who is not permitted to enroll in probationary status, is excluded from registration, and the student's academic record is marked "academic dismissal."

Dismissal is automatic if the overall Q.P.A. is below the minimum after two grading periods in probationary status or after failing to pass the Comprehensive Examination two times while in probationary status. A graduate student under academic dismissal is not eligible to attend courses offered in the School of Graduate Studies for a period of at least one calendar year.

A dismissed graduate student may, after a period of one year, reapply to the School of Graduate Studies in order to undertake studies in a new degree program or to further studies in a non-degree status. A graduate student is not permitted to register for any courses in a program from which he or she was dismissed.

Under exceptional circumstances and with the approval of the Assistant Vice President for Graduate Studies and Research, a program may readmit a dismissed student. In the latter instance,

Satisfactory Academic Progress

Satisfactory academic progress at the graduate level is evaluated on the basis of several criteria:

- a graduate student's ability to earn the minimum credit hours necessary to the degree program with a minimum quality point average of 3.0. Any grade of D or E must be repeated;
- a graduate student's ability to successfully meet the requirements at the appropriate time of all comprehensive examinations of the degree program with acceptable grades;
- a graduate student's ability to complete the thesis requirements of the degree program with a passing grade.

Non-degree students (Category 510), except for those in supervisory certificate programs, are excluded from consideration for satisfactory progress.

the normal six-year limitation for expired courses shall be applied. Graduate students dismissed for academic reasons may appeal their dismissal within one year, in writing, to the Graduate Council. The decision of the council is final.

Examinations

As part of the master's degree requirement, a comprehensive examination is likely to be required. Also, an examination in defense of a master's thesis is required of students who choose to write a thesis.

Master's Thesis or Departmental Paper

Normally, the master's thesis consists of an independent scholarly investigation which includes the experience of collecting, assembling, interpreting, and presenting a body of information to solve a formal research problem in the student's academic or professional field. Alternatively, it can include the preparation and exhibition or presentation of creative works in certain programs. The School of Graduate Studies requires that a thesis be a minimum of 6 semester hours. If the thesis is greater than 6 hours, only 6 semester hours may be counted toward degree requirements.

If a master's thesis is included in the student's program, a committee is appointed by the Assistant Vice President for Graduate Studies and Research from individuals nominated by the student's adviser. A *"Form for the Appointment of a Thesis Committee"* is available for this purpose from the Office of Graduate Studies. The committee guides the study, approves the thesis in both form and content, arranges for the defense, certifies satisfactory completion of the thesis, and determines the grade. Final copies of every thesis must utilize the format as presented in "Master's Thesis: Procedures," and must be printed on 100 percent cotton paper suitable for archiving such as that available at the University Store.

Some master's degree requirements include a departmental paper. Such a paper is interpreted as one that grows out of a course and therefore does not require special registration or carry its own credit. Completion of a departmental paper must be certified by the adviser as part of



the application for graduation.

Information about "Master's Thesis Procedures" is available from the Office of Graduate Studies and should be read by all graduate students prior to beginning work on a thesis project.

Human or Animal Research

In cases where a graduate student's research requires the use of any human or animal subjects, the student must seek appropriate approvals through the Institutional Review Board for Human Subjects and/or the Institutional Animal Care and Use Committee. Students should discuss the application process with their faculty adviser and obtain the appropriate approval application forms from the Office of Grants in Waller Administration Building.

Admission to Candidacy

Students should apply for candidacy after completing 12 semester hours of graduate work. Students must apply for candidacy on a form available from the Office of Graduate Studies before completing 15 semester hours. Under certain circumstances, the Assistant Vice President for Graduate Studies and Research may grant an extension.

Students must meet the following conditions for admission to candidacy for a master's degree:

- The student must be admitted as a regular graduate student.
- Official transcripts of all undergraduate and previous graduate study must be on file with the Assistant Vice President for Graduate Studies and Research.
- Students must have a minimum Q.P.A. of 3.0.
- The application must be endorsed by the student's adviser.
- Students applying for candidacy for the Master of Education program must have evidence of a valid teaching certificate. Please check with the appropriate program coordinator for verification of this requirement.

Admission for candidacy to a master's degree program might be deferred if needed courses are unavailable because of limited class size. If this happens, the student will be put on a priority waiting list for required courses.

Once the student has been accepted as a candidate for a master's degree, the student is eligible to use the service of Bloomsburg University's Career Development and Placement Center.

Time Limitation

Each student is expected to complete the requirements for a master's degree within six calendar years. This includes courses accepted by transfer. Bloomsburg University will grant extensions for sufficient reason, upon application to the Assistant Vice President for Graduate Studies and Research and with the approval of the student's adviser. This extension must be requested before the six-year period ends.

Graduation Requirements

Students who are completing degree programs must apply for graduation at the Office of the Registrar, Room 6, Ben Franklin Hall, telephone (717) 389-4263, and pay the graduation fees prior to the deadline listed in the university calendar.

Each program that leads to a master's degree at Bloomsburg University



requires at least 30 semester hours of graduate credit. Courses with grades below C earn no credit toward a master's degree.

Students must have a cumulative Q.P.A. of 3.0 or higher to graduate with a master's degree from Bloomsburg University.

The Graduate Calendar in this catalog gives deadlines for applying for graduation, completion of thesis and departmental papers, comprehensive examinations, etc. These are deadlines, but students should plan to complete each segment before the due date, whenever possible.

Graduate Transcripts

Students may request a graduate transcript through the Registrar's Office. This may be done by letter, or by filling out a form available at the Registrar's Office. The cost per transcript is \$2.

ACADEMIC PROGRAMS



Master of Arts

Art History, Art Studio

Program Coordinator: Robert Koslosky, Ph.D.

(717) 389-4187

The Master of Arts program in art history develops an advanced knowledge base, writing proficiency, and research skills enabling the student to pursue a variety of professional options. A minimum of 30 semester hours is required including a thesis based on the student's area of interest. In conjunction with the student's committee, an individualized program of study is designed. Opportunities for interdisciplinary and off-campus experience are available.

The Master of Arts program in art studio emphasizes the development of creative and scholarly competencies in one or more of the following studio areas: drawing, crafts, ceramics, graphics, painting, or sculpture with concurrent or parallel work in the areas of art history, philosophy and psychology of art, art education, and visual aesthetics for a minimum of 30 semester hours.

Admission

Students may apply under two admission plans. Plan I is tailored for individuals who have earned a bachelor's degree in art (B.A., B.F.A., or B.S. in art education) from an accredited institution of higher education. Plan II is for individuals who have not graduated with a curriculum in art. In addition to meeting the general admission requirements for the School of Graduate Studies, these applicants must also include a one-page statement of the applicant's objectives and philosophy. Those choosing the master's degree in art studio need to submit an 8" x 10" plastic sleeve of slides representative of their creative work. Upon acceptance, students are required to appear for a personal interview with the department chairperson, program coordinator, and an adviser in their major field. At this time, any deficiencies in the applicant's background

will be noted and an appropriate course of study outlined. A thesis and an exhibition of creative work are required for art studio majors. A thesis and presented paper are required for art history majors.

Retention and Candidacy

Requirements of this program are the same as those for the School of Graduate Studies.

Graduation

Art studio majors will choose an area of concentration consisting of four levels of the selected specialization along with selected elective courses as suggested by their committee. Art history majors will specialize in an area of study along with advanced general studies. A minimum of 30 semester hours is required; this number may be exceeded depending on the student's program. All other graduation requirements for this program are the same as for the School of Graduate Studies.

Areas of Concentration for Advanced Study

The seven areas of concentration available to graduate students for advanced study in art studio include:

- 32.500, 01, 02, 03 Advanced Ceramics I, II, III, IV
- 32.510, 11, 12, 13 Advanced Drawing I, II, III, IV
- 32.520, 21, 22, 23 Advanced Crafts I, II, III, IV
- 32.530, 31, 32, 33 Advanced Graphics I, II, III, IV
- 32.540, 41, 42, 43 Advanced Painting I, II, III, IV
- 32.550, 51, 52, 53 Advanced Sculpture I, II, III, IV
- 32.580, 81, 82, 83 Advanced Photography I, II, III, IV
- 32.595 Directed Study in the Studio Arts

Graduate Courses in Art History

- 31.560 Readings and Research in Contemporary Art History
- 31.565 Readings and Research in American Art History
- 31.570 Readings and Research in European Art History
- 31.575 Readings and Research in Oriental Art History
- 31.580 Readings and Research in Architectural Art History
- 31.585 Art and Culture of France
- 31.592 Readings and Research in Advanced Visual Aesthetics
- 31.595 Directed Study in Art History
- 30.590 Current Theories in Art and Art Education
- 30.591 Visual Arts of the Exceptional Child
- 30.595 Master's Thesis

The preceding courses in art studio and art history carry 3 semester hours, except for 31.595 and 32.595 (Directed Study) which carry variable credit and 30.595 Master's Thesis with 3 to 6 semester hours.

Gallery, Permanent Art and Slide Collections

The department operates the Haas Gallery of Art, which features monthly exhibitions of varied art forms. A special exhibition of student art work is held annually, and an exhibition organized and planned by students in the art gallery course is held in the spring of each year. In addition, an art student intern maintains a small art gallery space in the Multicultural Center of the student union.

The Department of Art maintains an extensive permanent art collection of more than 400 pieces with works displayed throughout the campus. The department's slide collection numbers more than 50,000 units.

Faculty Research Interests

- Karl A. Beamer, M.F.A., associate professor. *Ceramics/sculpture*
- Carol B. Burns, M.F.A., assistant professor. *Crafts*
- Gary F. Clark, M.A., assistant professor. *Computer/video technology, drawing*
- Robert B. Koslosky, Ph.D., professor. *Art education/art history*
- Stewart L. Nagel, M.F.A., professor. *Graphics*
- Christine M. Sperling, Ph.D., associate professor. *Renaissance art history*
- Barbara J. Strohman, M.F.A., associate professor. *Drawing*
- Vera L. Vidity-Ward, M.F.A., associate professor. *Photography*
- Charles T. Walters, Ph.D., associate professor. *American/Oriental art history*
- Kenneth T. Wilson Jr., M.S., associate professor. *Painting*

Master of Arts

Communication

Program Coordinator: Mary Kenny Badami, Ph.D.

(717) 389-4184

The purpose of this program is to enhance the understanding of the philosophy, theory, and practice of the means by which human beings exchange information, ideas, and values through personal or mediated interaction. Using a variety of research tools, students discover the role communication plays in interpersonal, small group, public, and organizational situations. A master's degree in communication prepares graduates for doctoral study in communication and for careers in a number of areas including business, law, medicine, education, government, media, public relations, advertising, arts and entertainment, social and human services, high technology industries, and international relations and negotiations.

Admission

In addition to meeting the general admission requirements for the School of Graduate Studies, applicants for the Master of Arts in Communication program must submit:

- Graduate Record Examination scores (a minimum combined score of 950 on the verbal and quantitative tests).
- Three letters of recommendation from individuals who have the knowledge to comment on the applicant's potential to successfully complete a graduate program.
- Evidence of completion of two to three basic communication studies courses including, but not limited to, public speaking, interpersonal communication, persuasion, and business communication. Applicants without such preparation will be expected to enroll as auditors in 25.104 Interpersonal Communication and/or other course(s) as determined by the Graduate Committee.
- A one-page statement describing the applicant's objectives, goals, and direction for enrolling in the program.

Applicants who do not meet all of the requirements may request an interview with program faculty to discuss special circumstances or may petition, in writing, for a waiver of select entrance requirements.

Retention

In addition to meeting the general retention requirements for the School of Graduate Studies, a graduate student in communication must earn a minimum grade of B in each of the four core courses to remain in good academic standing. Students may be given the opportunity to retake a course after review of special circumstances by program faculty.

Graduation

- A minimum of 30 semester hours in graduate-level courses is required for graduation.

Required Courses (12 semester hours)

The following core courses are required for this degree program:

- 23.501 Nature of Communication
- 23.502 Interpersonal Communication
- 25.445 Organizational Communication
- 25.501 Introduction to Communication Research

Elective Courses (18 semester hours)

A minimum of 9 semester hours offered by the Department of Communication Studies must be elected.

- 25.502 Rhetorical Criticism
- 25.585 Special Topics in Communication
- 25.586 Special Topics in Communication
- 25.587 Special Topics in Communication

Special Topics courses include interviewing theory, political communication, nonverbal communication, communication and conflict, small group communication, cross-cultural communication, communication and the sexes, communication, technology and society, communication training in the organization, cultural foundations of the information society, rhetoric in a mediated society, and the rhetoric of social movements.

Up to 9 semester hours offered in other departments may be elected as approved by the student's adviser. Examples of such courses are:

- 45.500 Sociology of Mass Communication
- 46.440 Language and Culture
- 48.451 Laboratory Training in Group Processes

Faculty Research Interests

Mary Kenny Badami, Ph.D., professor. *Cross-cultural communication with focus on orientation programs; training and interviewing in organizational settings; gender and race as communication variables*

Dale A. Bertelsen, Ph.D., associate professor. *Media criticism and political communication.*

Janet Reynolds Bodenman, M.A., assistant professor. *Interpersonal and small group processes within organizations.*

Timothy B. Rumbough, Ph.D., assistant professor. *Communication apprehension, interpersonal communication and communication education.*

Howard N. Schreier, Ph.D., associate professor. *Contemporary rhetorical theory and criticism, and persuasion in the popular culture*

Kara Shultz, Ph.D., assistant professor. *Study of human symbol systems as they act in the creation, maintenance, and revision of cultures.*

James E. Tomlinson, M.A., associate professor. *Organizational and political communication, and the impact of communication technology on society*

- 48.453 Organizational Psychology
- 57.572 Multimedia Programming
- 93.583 Human Resources Development

• A 6-credit thesis or a departmental research paper is optional but strongly recommended for those seeking advanced study beyond the master's degree.

- A comprehensive examination is required. During the semester in

which the student completes 24 semester hours of coursework, or at its conclusion, an application for the test must be filed. The examination is a six-hour essay test that examines the candidate's knowledge of philosophy, theory, and application of material covered in at least three of the four core courses and other departmental courses the candidate has taken to that point. In the event of failure on the examination, or any part thereof, the student will be given one opportunity to retake the part(s) failed.

MBA

Master of Business Administration

Program Coordinator: Minoo Tehrani, Ph.D.

(717) 389-4759

Bloomsburg University's School of Business was founded in 1930. Today, the College of Business has six academic units and, with more than 100 students, is the largest graduate program at Bloomsburg University. The MBA programs, launched in 1976, provide theoretical, analytical, and operational skills required to meet the problem-solving and decision-making challenges in managing business resources.

The MBA curriculum blends accounting, finance, the legal environment, management, management information systems, marketing, and international business courses to prepare students for a globally dynamic and competitive business environment.

The graduate faculty employ a variety of instructional techniques, case studies, applied research, and group projects, to develop and augment theoretical and practical knowledge.

The graduate faculty in the College of Business are highly trained and actively involved in research. Interdisciplinary graduate faculty teach a variety of subjects in the MBA programs.

International exchange programs and internships and a diverse group of faculty and students tremendously enhance the learning experience.

The degree program is planned to reflect the curriculum standards of the American Assembly of Collegiate Schools of Business.

The MBA programs at Bloomsburg University recognize the needs, goals, and aspirations of a diverse group of students. The programs include

- the full-time MBA, one and a half years
- the part-time MBA.

Admission

Applicants to the MBA programs must provide documents indicating the following:

- baccalaureate degree from an accredited college or university
- a minimum undergraduate GPA of 2.50
- a minimum score of 450 on the Graduate Management Admission Test (GMAT).
- a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) for international applicants whose native language is not English.
- three letters of recommendation
- a resume
- an official copy of all academic transcripts.

Retention and Candidacy

For special requirements for candidacy into the MBA programs other than those for the School of Graduate Studies, please contact the MBA coordinator.

Graduation

The MBA programs are comprised of two levels of courses.

Level I consists of background courses that are prerequisites to Level II. Students with an undergraduate major in business administration are likely to have had most Level I courses. Level I courses must be completed before beginning Level II work. Level I courses include:

- Financial Accounting or Principles of Accounting II
- Principles of Management
- Marketing Principles and Practices
- Statistics
- Business Law
- Business Finance
- Micro and Macro Economics
- two semesters of mathematics including one semester of calculus.

Level II consists of 36 semester hours. The sequence of the Level II courses for the full-time MBA program starting in the fall includes:

Fall Semester

- 91.524 Managerial Accounting
- 93.511 Statistical Analysis and Design
- 97.551 Marketing Management

Spring Semester

- 93.554 Management Information Systems
- 93.562 Organization Theory
- 96.535 Financial Management



1st Summer Session

- 93.560 Operations Management
 _____ Elective

2nd Summer Session

- 93.566 Organization Behavior

Fall Semester

- 93.558 Social Responsibility and Business Ethics
 93.581 Business Policy
 _____ Elective

Part time students have six years to finish the above program in a logical sequence.

Two electives (6 credit hours) must be chosen from available graduate courses in the College of Business. Examples of these are as follows:

- 91.501 Accounting
- 91.502 Advanced Financial Accounting
- 91.503 Government and Fund Accounting
- 91.521 Advanced Cost Accounting
- 91.522 Advanced Auditing Accounting
- 91.523 Advanced Tax Accounting
- 91.551 International Accounting
- 91.552 Controllorship Accounting
- 93.512 Managerial Economics
- 93.540 Small Business Institute Seminar
- 93.556 International Management
- 93.563 Operations Research
- 93.583 Human Resources Development
- 96.540 International Finance
- 96.550 Security Analysis and Portfolio Management
- 96.554 Financial Management Decisions
- 97.552 Marketing Research
- 98.507 International Legal Environments

Special topic courses are available in each discipline. Other graduate electives may be taken with the permission of the MBA programs coordinator.

Students must complete all requirements for graduation with a 3.00 minimum GPA. No more than two C grades are allowed in the graduate courses taken at Bloomsburg University. Please contact the MBA coordinator at the College of Business for further information or other special requirements.

Faculty

Accounting

- Richard L. Baker, Ph.D., professor
- Michael C. Blue, Ph.D., associate professor
- E. Burel Gum, Ed.D., professor
- Dennis B. Hwang, Ph.D., associate professor
- Richard Schrader, Ph.D., assistant professor

Computer & Information Systems

- Patricia Boyne, M.S., assistant professor
- Carl Chimi, Ph.D., associate professor
- Frank S. Davis, Ph.D., professor
- James S. Dutt, Ph.D., associate professor
- Harold K. Frey, M.S., associate professor
- Gene Gordon, Ed.D., associate professor
- Charles J. Hoppel, Ph.D., associate professor

Finance & Business Law

- Barbara E. Behr, J.D., professor
- Karen Elwell, J.D., associate professor
- David G. Heskel, Ph.D., associate professor
- David Martin, Ph.D., associate professor
- Bruce L. Rockwood, J.D., professor
- William. Steven Smith, Ph.D., associate professor

Management

- Mainuddin Afza, Ph.D., associate professor
- M. Ruhul Amin, Ph.D., professor
- Charles Chapman, M.A., associate professor
- Howard J. Kinslinger, Ph.D., associate professor
- Mark Larson, Ph.D., associate professor
- Stephen Markell, Ph.D., associate professor
- Irem Ozkarahan, Ph.D., associate professor
- Minoo Tehrani, Ph.D., associate professor
- Peter B. Venuto, Ph.D., professor
- Pamela Wynn, Ph.D., associate professor

Marketing

- Stephen Batory, D.B.A., associate professor
- Mary K. Ericksen, Ph.D., associate professor
- Kiran Karande, Ph.D., assistant professor
- Salim Qureshi, Ph.D., associate professor
- Robert N. Watts, M.B.A., associate professor

Master of Education

Biology

Program Coordinator: George P. Chamuris, Ph.D.

(717) 389-4735

The Master of Education program in biology is intended to enhance the competence of secondary school teachers of biology by extending their scholarship in content and method through formal courses, independent study, and research.

Admission

An undergraduate degree in biology with Level I Certification is required for admission to the program. Undergraduate deficiencies must be rectified prior to admission to candidacy without credit toward the degree. Scores from the general and the biology subject portions of the Graduate Record Examination are required for admission.

Faculty Research Interests

Joseph P. Ardizzi, Ph.D., assistant professor. *Fungal genetics, microbiology, and cell biology*
 George P. Chamuris, Ph.D., associate professor. *Biology of wood- and bark-inhabiting fungi*
 James E. Cole, Ph.D., professor. *Vertebrate ethology*
 Judith P. Downing, Ph.D., professor. *Immunology, bacterial resistance to antimicrobial agents, and infectious diseases caused by bacteria*
 Phillip A. Farber, Ph.D., professor. *Cytogenetics*
 George J. Gellos, Ph.D., associate professor. *Developmental plant morphology*
 Frederick C. Hill, Ph.D., professor. *Vertebrate zoology, malacology, and aquatic biology*
 Judith Kipe-Nolt, Ph.D., assistant professor. *Soil microbiology*
 Thomas S. Klinger, Ph.D., associate professor. *Marine biology, physiological ecology, and biometry*
 Mark S. Melnychuk, Ph.D., associate professor. *Nutrition and reproductive physiology*
 Lynne C. Miller, Ph.D., professor. *Medical parasitology, parasite immunology and physiology, experimental pharmacology and toxicology*
 Louis V. Mingrone, Ph.D., professor. *Phytochemical systematics, floristics*
 James E. Parsons, Ph.D., associate professor. *Clinical microbiology and medical mycology*
 Cynthia A. Surmacz, Ph.D., professor. *Cell physiology and exercise physiology*
 Margaret L. Till, Ph.D., assistant professor. *Endocrinology, adrenocortical mechanisms, comparative animal physiology*

Retention

Requirements for this program are the same as those for the School of Graduate Studies.

Candidacy

An oral examination to assess the student's knowledge of general biology is required for admission to candidacy.

Graduation

A minimum of 30 semester hours in graduate-level courses is required. A minimum of 18 semester hours must be taken from 500-level courses (see list below) including two required education courses, 60.501 Major Philosophies of Education and 79.591 Research in Education.

Either 50.591 Directed Study in Biology or 50.592 Master of Education Thesis is required to fulfill the research component. An oral defense of the research component is required; a written and/or comprehensive examination may also be required. Otherwise there are no required biology courses; all are considered elective courses.

- 50.411 Radiation Biology
- 50.432 Microbial Genetics
- 50.441 Cytogenetics
- 50.455 Environmental Microbiology
- 50.462 Plant Anatomy
- 50.463 Biological Photographic Techniques
- 50.521 Systematic Botany
- 50.530 Evolution
- 50.531 Developmental Biology
- 50.532 Molecular Genetics
- 50.549 Entomology
- 50.550 Mycology
- 50.551 Conservation of Biological Resources
- 50.552 Limnology
- 50.557 Biology of Lower Vertebrates
- 50.558 Fungal Ecology
- 50.559 Ornithology
- 50.561 Animal Behavior
- 50.570 Medical Parasitology
- 50.571 Endocrinology
- 50.572 Comparative Animal Physiology
- 50.573 Systemic Physiology
- 50.575 Cell Physiology
- 50.576 Neuromuscular Physiology
- 50.590 Current Topics in Biology
- 50.591 Directed Study in Biology
- 50.592 Master of Education Thesis

Marine Science Courses

The following courses are offered at the Marine Science Center, Wallops Island, Va.

- 55.431 Ecology of Marine Plankton
- 55.500 Problems in Marine Science
- 55.540 Environmental Science Education
- 55.570 Research Cruise - Biology

Master of Education

Business Education

Program Coordinator: Roger W. Ellis, Ed.D.

(717) 389-4109/4121

The program is designed to prepare students in the design, implementation, and management of office systems in a business environment. The program offers practical and realistic learning activities, hands-on instruction in new information technology, and field-based research projects.

This program does not require evidence of a valid teaching certificate, but may lead to certification in business education with the completion of additional coursework. For information regarding certification, please contact program coordinator.

Admission

Applicants must satisfy the general admission requirements for the School of Graduate Studies as well as the following requirements for the Master of Education in Business Education:

- A minimum Q.P.A. of 2.5 on a 4.0 scale.
- Completion of the Graduate Record Exam general knowledge section with a minimum score of 1,000 or the Miller Analogies Test with a minimum score of 30.
- Submit a typed letter of intent stating professional background, experience, and rationale for wanting to be admitted to the program.
- Submit two letters of recommendation with the names, addresses, positions, and telephone numbers of the references who have knowledge of the applicant's academic and professional background.
- Applicants who do not meet these requirements may be admitted as provisional after an interview with the program coordinator.

Retention and Candidacy

Requirements for this program are the same as those for the School of Graduate Studies.

Graduation

A minimum of 30 semester hours in graduate-level courses is required. The program consists of two required courses, two elective courses, and an office systems emphasis consisting of six courses.

Required Courses (6 semester hours)

- 79.591 Foundations of Educational Research
90.581 Seminar in Business Education

Approved Graduate Electives (6 semester hours)

Graduate-level courses to fulfill the elective requirements will be chosen by the student and the program coordinator based on career needs.



Office Systems Emphasis (18 semester hours)

- 94.500 Introduction to Office Systems and Information
94.510 Office Systems Applications
94.520 Administrative Communications
94.530 Telecommunications
94.540 Training and Development in Office Systems
94.550 Integrated Office Systems

(Students should enroll in this course during the last semester of the degree program.)

Certification

Students who wish to receive a Level I Professional Teaching Certificate in business education (accounting, data processing, marketing, and office technologies) from the Pennsylvania Department of Education must fulfill these requirements in addition to the M.Ed. in Business Education:

- Additional coursework in the areas of education and business as determined by the program coordinator after a review of transcripts.
- Completion of the business teacher education packet.
- Passing the National Teacher Examination core battery and the specialty area for business education.

Faculty Research Interests

Ellen M. Clemens, D.Ed., associate professor. *Methodology and business education*

Donna J. Cochrane, Ed.D., associate professor. *Training and development, business teaching methodology, office technologies*

Nancy A. Dittman, Ed.D., associate professor. *Business communications, international communications*

Roger W. Ellis, Ed.D., associate professor. *Records and information management*

Dennis O. Gehris, Ed.D., assistant professor. *Work attitude assessment, business teaching methodology, software applications in business*

Janice C. Keil, Ed.D., assistant professor. *Business teaching methodology*

John J. Olivo Jr., Ph.D., professor. *Ergonomics, impact of technology on organizations' policies and procedures, telecommunications, analyzing and improving workflow, end-user computing*

Master of Education

Curriculum and Instruction

Program Coordinator: John R. Hranitz, Ed.D.

(717) 389-4030

The program is field-based and designed to enhance the professional curricular and instructional competencies of individuals who work with children, youth, and adults.

The program's field-based approach ensures the needs of school-based faculty are continually addressed through faculty involvement in the following areas:

- Planning and implementation of the core courses;
- Advisement of theses;
- Development of research projects;
- Improvement of instruction;
- Development of curriculum;
- Continuous evaluation of the degree program; and
- Implementation of theory into the classroom.

The "field-based" core curriculum of this program will permit unique and interesting applications of theory and research to each classroom. Individuals motivated to improve the quality of instruction will find a format that will enable them to expand (1) their knowledge of the subject they are teaching, (2) their knowledge of the curriculum and its applicable methodology, (3) their skills in individualization through diagnosis and prescription, and (4) their skills in communicating with students, parents, and educational professionals.

The liberal arts core of 6 semester hours will increase the depth of the knowledge base and skills of each graduate student. Knowledge from several disciplines will be combined into a course that will permit the graduate student to develop new and often unique educational perspectives.

The individualized curriculum enables each graduate student to pursue 12 semester hours of graduate study within an area of concentration such as English, social sciences, mathematics and computer science, physical and life sciences, elementary, early childhood, reading, and humanities.

Completion of the individualized curriculum may require that students enroll and pursue courses offered by other universities.

Faculty Research Interests

Any graduate faculty member from the Bloomsburg University liberal arts and sciences or education departments may participate in this program.

Admission

Applicants must satisfy the general admission requirements for the School of Graduate Studies. A teaching certificate is not required for admission. The program does not provide Instructional Level I certification. The following additional criteria are also required:

- Meet with program coordinator to clarify requirements, review academic records, discuss transfer of any courses and initiate planning for any research projects and the thesis; and
- Attain a score of 30 or higher on the Miller Analogies Test.

Retention

Graduate students must take a minimum of 9 semester hours per calendar year. A Q.P.A. of 3.0 or higher must be maintained. Students not taking a minimum of 9 semester hours per calendar year will be considered "inactive" after two years.

Candidacy

Application for candidacy must be made after completion of 12 to 15 semester hours. Only courses with a minimum grade of B are considered applicable to this program. Students must repeat all courses in which the grade of C or lower is earned.

Up to 18 semester hours from accredited institutions, other than Bloomsburg University, may, upon approval, be accepted toward completing the degree requirements of this program. However, no courses will be transferred in which a grade less than a B was earned.

Graduation

Graduate students must be admitted to candidacy, complete 30 semester hours of approved course work, complete 6 semester hours for the thesis, and apply for graduation. All deficiencies, monetary and academic, must be satisfied before the degree can be granted.

The following courses constitute the 36-hour master's degree program in curriculum and instruction:

The Core Curriculum (4 courses required): 12 semester hours

- 79.593 Studies in Human Diversity
- 48.576 Theories of Human Learning
- 60.584 Curriculum and Instructional Theory, Design, and Development
- 79.591 Research in Education

The Liberal Arts Curriculum (2 courses required): 6 semester hours.

The Individualized Curriculum — Area of Concentration
(4 courses required): 12 semester hours

- 79.599 Thesis: 6 semester hours

Master of Education

Elementary Education

Program Coordinator: Neil L. Brown, Ed.D.

(717) 389-4876

The program enhances the professional competence of an individual as a teacher and a leader through its emphasis on integrated learning experiences in the study of the child. Areas of study include elementary school curriculum and its trends, new techniques, current research, and opportunities for study in the teacher's academic field of interest.

Admission

Applicants must satisfy the general admission requirements for the School of Graduate Studies as well as the following requirements for admission to the M.Ed. in Elementary Education program:

- Possess the Instructor Level I Certification for teaching in the elementary schools of Pennsylvania.
- Meet with the program coordinator to clarify program requirements, review academic records, and outline a plan for completing degree work.

Retention

Requirements of this program are the same as those for the School of Graduate Studies.

- Take the Miller Analogies Test before completing the 12 to 15 semester hours needed for application for degree candidacy (minimum score is 30).

Graduation

A minimum of 30 semester hours is required to complete this master's program.

Required Courses

- 60.501 Major Philosophies of Education
 - 60.502 School and Society
 - 60.506 Urban Education
 - 60.514 Home, School, and Community Relations
 - 79.591 Research in Education
- (or adviser-approved alternative)

Also required are 6 to 12 semester hours of coursework related to an area of professional interest, e.g., early childhood education, reading, or an academic discipline.

Electives

The remaining courses needed to complete the degree program may be selected, with an adviser's approval, from those listed in this catalog. Acceptable courses are listed under the following areas: elementary and early childhood education, educational foundations, secondary education, reading, or those offered by other academic departments.

• All students seeking an M.Ed. in Elementary Education are required to demonstrate competency in writing skills by completing an in-depth research paper. This may take the form of a departmental paper or a thesis. The research paper must follow the style format of either the *Publication Manual of the American Psychological Association* or *Form and Style* by Campbell.

Departmental papers must be read and approved by the student's adviser and one other member of the graduate faculty. A thesis must meet the requirements of the School of Graduate Studies.

Faculty Research Interests

- C. Meade Beers, D.Ed., assistant professor. *Foundations, administration, curriculum and supervision*
- Neil L. Brown, Ed.D., assistant professor. *Social studies and early childhood education*
- Chris A. Cherrington, Ph.D., associate professor. *Reading*
- Robert L. Clarke, Ed.D., assistant professor. *Supervision*
- Henry D. Dobson, Ph.D., associate professor. *Computing and supervision*
- Gary J. Doby, Ph.D., assistant professor. *English and supervision*
- Hussein Fereshteh, Ph.D., assistant professor. *Foundations of education*
- Bonita B. Franks, Ph.D., associate professor. *Reading*
- Robert Gates, Ed.D., assistant professor. *Supervision and administration*
- Nancy G. Gilgannon, D.Ed., professor. *Measurement of education*
- Mary Harris, Ed.D., associate professor. *Foundations of education*
- John R. Hranitz, Ed.D., professor. *Early childhood education and supervision*
- Jane McPherson, Ph.D., assistant professor. *Early childhood education*
- Gorman L. Miller, Ed.D., professor. *Mathematics and supervision*
- Frank Misiti, Ph.D., assistant professor. *Science education*
- William S. O'Bruba, Ed.D., professor. *Reading, early childhood education, and supervision*
- Gilda Oran, Ed.D., assistant professor. *Supervision and early childhood education*
- Egerton Osunde, Ph.D., assistant professor. *Social Studies and supervision*
- Edward J. Poostay, Ph.D., professor. *Reading*
- Donald L. Pratt, Ph.D., associate professor. *Computing and supervision*
- Rosemary Radzievich, Ed.D., assistant professor. *Reading and supervision*
- Lorraine A. Shanoski, Ed.D., associate professor. *Early childhood education*
- Viola Supon, Ed.D., assistant professor. *Elementary education*
- David E. Washburn, Ph.D., professor. *Foundations of education*
- Mary Alice Wheeler, Ph.D., assistant professor. *Supervision*
- Bonnie L. Williams, Ed.D., assistant professor. *Mathematics and supervision*
- Patricia K. Wolf, Ph.D., assistant professor. *Supervision*

Master of Education

Reading

Program Coordinator: Edward J. Poostay, Ph.D.
(717) 389-4092

This program provides an opportunity for professionals to earn an M.Ed. in Reading and/or certification as a K-12 reading specialist in the Commonwealth of Pennsylvania. The program emphasizes attaining a knowledge base in current research, diagnosing and remediating reading difficulties, and improving the instructional practices of classroom teachers, reading specialists, and resource room teachers.

All graduate-level reading programs are coordinated through the Bloomsburg University Reading Clinic, which is part of the Department of Curriculum and Foundations within the School of Education and the College of Professional Studies. The clinic was established in 1957 and provides free diagnostic and tutorial services for children and adults. Graduate assistantships, which provide a tuition waiver and a stipend, and require working 10 to 20 hours per week in the Reading Clinic, are available on a competitive basis.

Admission

Applicants must satisfy the general admission requirements for the School of Graduate Studies as well as the following requirements, which are specific to the Reading Specialist certification program and the M.Ed. in Reading program:

- A written recommendation from any two of the following references: undergraduate faculty, graduate faculty, direct-line supervisors, administrators, or other individuals who are familiar with the applicant's academic abilities. Recommendation forms are available at the Blooms-

burg University Reading Clinic.

- An interview with the program coordinator to clarify program requirements, discuss goals, evaluate academic records, and outline a long-range program. The program coordinator's recommendations will be forwarded to the Assistant Vice President for Graduate Studies and Research.

- A minimum undergraduate Q.P.A. of 3.0.

- An applicant who does not have an undergraduate Q.P.A. of 3.0 may be admitted as a provisional student, but will be required to take the Graduate Record Examination (must achieve a combined Verbal/Quantitative/Analytical score of 1,200) or the Miller Analogies Test (must achieve a minimum score of 45). If required, the tests must be completed before the student completes 9 semester hours at Bloomsburg University.

Retention

- Students must maintain a Q.P.A. of 3.0.

- Graduate-level reading courses with a grade of C or lower must be repeated to achieve a grade of B or higher.

- After completing 12 semester hours, students must adhere to the university's application procedures for candidacy.

Transfer Credits

- A maximum of 9 semester hours of graduate-level coursework may be transferred from an accredited institution.

- Transfer courses must carry a grade of B or higher and must be completed no earlier than three years prior to admission.

- Transfer credits may be requested or submitted at any time during the student's six-year program, but require prior approval from the student's adviser and the Assistant Vice President for Graduate Studies and Research.

Graduation

Students seeking an M.Ed. in Reading must complete 36 semester hours with a Q.P.A. of 3.0.

Students seeking certification as a reading specialist must take a comprehensive examination, written or oral.

The reading specialist certification program consists of 24 semester hours; 12 additional semester hours are required for the M.Ed. in Reading. The first eight courses in the following list are required for the reading specialist certification program; the courses 60.501 and 79.591, and two elective courses are required for the M.Ed. program. The elective courses can be selected from a predetermined list of courses, with prior approval from the program coordinator and the Assistant Vice President for Graduate Studies and Research. The parentheses indicate the semesters the courses are offered:

Required Courses

- 63.540 Introduction to the Teaching of Reading (fall, spring, summer)
- 63.541 Diagnosis and Prescription in Reading (fall, summer)
- 63.543 Clinical Practicum I (fall, spring)
- 63.544 Clinical Practicum II (summer)
- 63.545 Organization and Administration of Reading Programs (summer)



- 63.546 Reading in the Content Areas (fall, spring)
- 63.548 Reading Instruction for the At-Risk Learner (fall, spring)
- 63.550 Literature, Literacy and Culture
- 60.501 Major Philosophies of Education (fall, summer)
- 79.591 Research in Education (fall, spring, summer)

All requirements must be completed within six years from the date of admission into the program. Students must reenroll for all courses which exceed the six-year program completion deadline outlined in the Graduate Catalog.

Level I Certification Requirements

Students seeking certification as a Reading Specialist must complete 24 semester hours with a Q.P.A. of 3.0 and take a comprehensive essay

Faculty Research Interests

Edward J. Poostay, Ph.D., professor. *Diagnosis, remediation, parent involvement*

Chris A. Cherrington, Ph.D., associate professor. *Language arts and children's literature*

examination prepared by the faculty in the graduate reading program. Specific guidelines for the comprehensive examination can be obtained from the program coordinator.

Master of Science

Audiology

Program Coordinator: G. Donald Miller, Ph.D.

(717) 389-4436

The purpose of the training program in audiology is to prepare graduates to provide diagnostic and habilitative audiological services in a variety of job settings. The program is accredited by the Educational Standards Board of the American Speech-Language-Hearing Association (ASHLA) and is designed to afford its graduates the academic and clinical practicum requirements necessary to receive the Certificate of Clinical Competence in Audiology (CCC-A) issued by ASHLA as well as to meet the requirements for an audiology license as issued by the Commonwealth of Pennsylvania.

Graduates of the program obtain employment in hospitals and medical centers, clinics, physicians offices, schools, industries, and in private practice settings. The students receive broad-based academic training and obtain practicum experience in a variety of practical settings including on campus and externship sites. The student's academic experiences include evaluating and conducting research in the discipline.

Students may be accepted into the graduate audiology program with any undergraduate degree, but individuals without an acceptable undergraduate program in speech and hearing will, by advisement, be required to take prerequisite coursework and practicum as a part of their graduate audiology degree program.

Admission

- The applicant is required to submit a one-page, typed letter of intent stating professional background, experience, and rationale for wanting to be admitted to audiology.
- The applicant is required to submit three letters of recommenda-

tion with the names, addresses, positions, and telephone numbers of the references who have knowledge of the applicant's academic and clinical background.

- The applicant should arrange for an interview with the program coordinator.

- An applicant must have a baccalaureate degree from an accredited institution, with a minimum grade point average of 2.8. Students who do not have an undergraduate major in the area of communication disorders will be required to satisfactorily complete certain academic and practicum deficiencies as prescribed by the faculty following individual transcript analysis.

- The Graduate Record Examination will be required of all applicants with a combined minimum score of 1450 on the verbal, quantitative and analytical subtests needed for admission.

Applicants who fail to satisfy the program's requirements may be admitted on a provisional basis. In such cases, the terms of the conditional admission will be specified for the individual applicant.

Retention

The student must maintain a Q.P.A. of 3.0 with a maximum of two Cs throughout the graduate program. A grade of C in any clinical experience will necessitate repeating the course to achieve a grade of B or higher.

Candidacy

Students must apply for admission to candidacy once they have completed 12 to 15 semester hours of coursework.

Graduation

- A minimum of 42 semester hours is required to complete the master's program.

Required Courses

Undergraduate Courses

72.200 Introduction to Audiology

72.300 Auditory Training and Speech Reading

Graduate Courses

72.500 Measurement of Hearing Loss

- 72.502 Physiological Methods in Audiology
- 72.504 Hearing Aids and Auditory Training
- 72.506 Externship: Clinical Practicum in Audiology I
- 72.508 Externship: Clinical Practicum in Audiology II
- 72.510 Research in Audiology
- 72.512 Seminar in Audiology: Special Problems
- 72.514 Seminar in Audiology: Industrial and Public Health Audiology
- 72.516 Seminar in Audiology: Auditory Problems in Children
- 72.518 Seminar in Audiology: Theoretical and Clinical Masking
- 72.520 Educational Audiology
- 72.522 Aural Rehabilitation: Theory and Practice
- 72.524 Clinical Methods and Practicum in Audiology I
- 72.525 Clinical Methods and Practicum in Audiology II
- 72.526 Clinical Methods and Practicum in Audiology III
- 72.527 Clinical Methods and Practicum in Audiology IV
- 72.532 Electronics and Instrumentation in Audiology

Elective Courses

- 72.528 Clinical Methods and Practicum in Audiology
- 72.590 Independent Study and Research
- 72.591 Independent Study and Research
- 72.599 Master's Thesis

Faculty Research Interests

Richard M. Angelo, Ph. D., Ed.D., professor, director of clinical services. *Basic and clinical electrophysiology; hearing aids*

G. Donald Miller, Ph.D., professor, curriculum coordinator. *Clinical audiology including electrophysiological evaluation; industrial audiology and hearing conservation*

Vishaka W. Rawool, Ph.D., assistant professor. *Electrophysiology, clinical audiology, aural rehabilitation*

74.568 Advanced American Sign Language

Other elective courses available via advisement.

- A thesis or departmental paper is required.

- The M.S. in Audiology degree program has monitoring and exit criteria. There are periodic comprehensive reviews of each student's academic and clinical abilities. These reviews may take the form of oral or written examinations during or near the completion of the program.

Master of Science

Biology

Program Coordinator: George P. Chamuris, Ph.D.

(717) 389-4735

This program prepares students for either admission to a research-oriented doctoral program in the biological sciences or employment in a biological or health-oriented profession.

The program also enhances the knowledge, perspective, and experience of teachers of biology in secondary schools. A broad array of sub-disciplines is represented among the faculty, providing a solid program in general biology.

The university is a member of the Marine Science Consortium. Courses in marine science are offered during the summer at Marine Science Center located near Wallops Island, Va.

Graduate students may use this facility to take graduate-level courses in marine biology or to pursue research projects at the Bloomsburg University Marine Biology Laboratory.

Admission

A B.S. or B.A. in biology or its equivalent is required for admission to this master's program. Undergraduate deficiencies must be rectified, without credit earned toward the degree, prior to admission to candidacy. Scores from both the general and biology subject portions of the Graduate Record Examination are required for admission.

Candidacy

An oral examination is required for admission to candidacy. The exam assesses the student's knowledge of general biology.

Graduation

A minimum of 30 semester hours of graduate-level courses is required. With the exception of the Master of Science Thesis (thesis option), there are no required courses. All courses are considered elective courses.

- 50.411 Radiation Biology
- 50.432 Microbial Genetics
- 50.441 Cytogenetics
- 50.455 Environmental Microbiology
- 50.457 Entomology
- 50.462 Plant Anatomy
- 50.463 Biological Photographic Techniques
- 50.521 Systematic Botany



- 50.530 Evolution
- 50.531 Developmental Biology
- 50.532 Molecular Genetics
- 50.550 Mycology
- 50.551 Conservation of Biological Resources
- 50.552 Limnology
- 50.557 Biology of the Lower Vertebrates
- 50.558 Fungal Ecology
- 50.559 Ornithology
- 50.561 Animal Behavior
- 50.570 Medical Parasitology
- 50.571 Endocrinology
- 50.572 Comparative Animal Physiology
- 50.573 Systemic Physiology
- 50.575 Cell Physiology

- 50.576 Neuromuscular Physiology
- 50.590 Current Topics in Biology
- 50.591 Directed Study in Biology
- 50.593 Master of Science Thesis

Marine science courses offered at Wallops Island, Va.

- 55.431 Ecology of Marine Plankton
- 55.500 Problems in Marine Science
- 55.540 Environmental Science Education
- 55.570 Research Cruise-Biology

Thesis Option. This option is recommended for students planning to continue their studies through additional graduate or professional training. A minimum of 18 semester hours must be taken from 500-level courses. The Master of Science Thesis (50.593) accounts for 6 of these semester hours. An oral defense of the thesis is required.

Non-Thesis Option. This option is tailored for students interested in non-research oriented careers. A minimum of 18 semester hours must be taken from 500-level courses. In addition, one of the following must be completed: (1) Directed Study in Biology (50.591) for three semester hours, which must be defended orally, or (2) a departmental research paper based on the literature must be submitted and defended orally. The departmental paper carries no semester hour credit.

Faculty Research Interests

- Joseph P. Ardizzi, Ph.D., assistant professor. *Fungal genetics, microbiology, and cell biology*
- George P. Chamuris, Ph.D., associate professor. *Biology of wood- and bark-inhabiting fungi*
- James E. Cole, Ph.D., professor. *Vertebrate ethology*
- Judith P. Downing, Ph.D., professor. *Immunology, bacterial resistance to antimicrobial agents, and infectious diseases caused by bacteria.*
- Philip A. Farber, Ph.D., professor. *Cytogenetics*
- George J. Gellos, Ph.D., associate professor. *Developmental plant morphology*
- Frederick C. Hill, Ph.D., professor. *Vertebrate zoology; malacology; and aquatic biology*
- Judith Kipe-Nolt, Ph.D., assistant professor. *Soil microbiology*
- Thomas S. Klinger, Ph.D., associate professor. *Marine biology; physiological ecology; and biometry*
- Mark S. Melnychuk, Ph.D., associate professor. *Nutrition and reproductive physiology*
- Lynne C. Miller, Ph.D., professor. *Medical parasitology; parasite immunology and physiology; experimental pharmacology and toxicology*
- Louis V. Mingrone, Ph.D., professor. *Phytochemical systematics and floristics*
- James E. Parsons, Ph.D., associate professor. *Clinical microbiology and medical mycology*
- Cynthia A. Surmacz, Ph.D., professor. *Cell physiology and exercise physiology*
- Margaret L. Till, Ph.D., assistant professor. *Endocrinology; adrenocortical mechanisms, comparative animal physiology*

Master of Science

Early Childhood Education

Program Coordinator: John R. Hranitz, Ed.D.

(717) 389-4030

This program is intended to enhance the professional competence of the individual as a teacher of young children. It includes integrated learning experiences in the study of the young child from prenatal through age eight, curriculum, current practice, and areas of interest to the teacher of young children. Individuals not holding any type of certification can obtain the Instructional Level I Certificate in Early Childhood Education, N, K-3. The program also has an option that enables the teacher with an Instructional Level I Certificate in Elementary Education, K-6 to obtain N, K-3, Early Childhood Education Certification.

Admission

The following admission requirements, which apply to both the Master of Science in Early Childhood Education program and to the master's program with an Early Childhood Education Certification, must be met in addition to the general admission requirements for the School of Graduate Studies. Undergraduate work need not be in a specific field of study.

- An interview and a review of academic credentials are required. Applicants who lack an undergraduate Q.P.A. of 2.5 will be admitted on a provisional basis. A 3.0 Q.P.A. is required of all persons seeking admission to candidacy.
- All applicants will take the Miller Analogies Test. A minimum score of 30 is required.

Faculty Research Interests

- John R. Hranitz, Ed.D., professor. *Child development, administration, research, theory, and curricular practices and experiences*
- Jane McPherson, Ph.D., assistant professor. *Curricular practices and experiences*
- William S. O'Bruba, Ed.D., professor. *Child development, theory, reading, children's literature, and curricular practices and experiences*
- Gilda Oran, Ed.D., assistant professor. *Curriculum practices and experiences*
- Lorraine A. Shanoski, Ed.D., associate professor. *Theory, research, identification and prescription of learning needs, and curricular practices and experiences*
- Bonnie Williams, Ed.D., assistant professor. *Curricular practices and experiences*

Certification Requirements

- Three recommendations from any of the following persons: undergraduate or graduate faculty, direct-line supervisors, administrators, and other individuals who are familiar with the applicant's academic abilities and personal qualities. Recommendation forms are available from the program coordinator for early childhood education.
- Written completion of a 10-day field experience. Forms are available from the program coordinator.
- Written completion of a 14-day participation experience. Forms are available from the program coordinator.
- Passing and/or remediation of speech and hearing tests, and vision tests. Forms are available from the program coordinator.
- Passing the National Teacher Examination core battery and the specialty area of early childhood education.

Retention

- Students must maintain a Q.P.A. of 3.0 throughout their program. Courses in which a grade of C or lower are obtained must be repeated with a grade of B or higher. Students not maintaining a Q.P.A. of 3.0 after candidacy will be removed from the candidacy list.
- Students must apply for candidacy.
- State Police checks required by the Department of Health and Welfare and the Bureau of Certification must be completed prior to practice teaching in private and public schools, Head Start programs, and day care centers in Pennsylvania.
- All students will take and pass a screening examination (a candidacy exam) which is administered when they have completed 12 to 15 semester hours of graduate work. The examination consists of written and oral requirements.

Graduation

The Master of Science in Early Childhood program consists of 30 semester hours; 12 additional semester hours in course work and practicum are required for the Level I Certification, N, K-3. Students must complete 6 semester hours in foundation courses, 18 to 30 semester hours in early childhood education core courses, and 6 semester hours in related studies courses.

Required Courses

- 62.510 Methods and Materials in Early Childhood Education I
- 62.520 Methods and Materials in Early Childhood Education II
- 60.512 Educational Media and Software
- 62.522 Curriculum Trends in Early Childhood Education
- 62.523 Practices in Teaching the Young Child
- 62.590 Current Research and Development in Early Childhood Education
- 62.591 Learning and Development of the Young Child
- 62.592 Identification and Prescription of the Needs of Young Children
- 62.593 Organization and Administration of Educational Programs for Young Children
- 62.594 Practicum in Early Childhood Education

• Students seeking a Master of Science in Early Childhood Education must complete 30 semester hours with a 3.0 Q.P.A. Students seeking a Master of Science in Early Childhood Education with N, K-3 certifica-

tion must complete 42 semester hours with a Q.P.A. of 3.0.

- A departmental paper, thesis, comprehensive project, or the comprehensive examination is required for completion of the degree program. Specific guidelines are available from the program coordinator. All papers must be written following the American Psychological Association (APA) style guide. A five chapter format is preferred.

- All program requirements must be completed within six years af-

ter admission into the program. Students are required to complete their programs within four years after candidacy is granted. Extensions may be granted in certain situations. Students who fail to enroll and complete a course within a two-year period, are placed in an inactive file. Inactive students must reapply for admission, retake the screening examination, and reapply for candidacy. Courses older than six years will not meet the degree requirements.

Master of Science

Education of the Deaf/ Hard of Hearing

Program Coordinator: Samuel B. Slike, D.Ed.

(717) 389-4436

The graduate program in education of the deaf/hard of hearing is offered through the Department of Communication Disorders and Special Education. Prospective classroom teachers or itinerant hearing therapists are provided a variety of courses to prepare them for working with individuals with a hearing loss. Coursework furnishes conceptual as well as experiential background in the areas of academic therapy, speech-language therapy, communication, psycho-social development, curriculum and instruction. Depending on their undergraduate major, students are prepared to work with preschool, elementary, secondary, or multiple handicapped deaf/hard of hearing individuals.

In their practicum courses, students are provided the opportunity to work with individuals with a hearing loss in one-to-one and group situations. Various sites throughout Pennsylvania are offered for practicum experience. These sites are chosen according to the needs of the student intern. These practica provide a classroom as well as an itinerant experience with students with a hearing loss.

The Education of the Deaf/Hard of Hearing program does not advocate any particular method of working with students with a hearing loss. Persons with a hearing loss are viewed as individuals with varying needs. Prospective classroom teachers are afforded a background in all methods of instruction so as to prepare them to work with persons with a hearing loss in a variety of educational settings.

Admission

Applicants with bachelor's degrees in early childhood education, elementary education, secondary education, special education, and communication disorders, are considered to have appropriate educational backgrounds for entry into the program. Those students without education courses in their background are required to take a core of education courses. Prerequisite coursework in the following areas must be

completed either before or during the graduate program.

- Undergraduate area of concentration in education of the deaf/hard of hearing.

- All applicants to the graduate program in education of the deaf/hard of hearing must have completed an introductory course in statistics or its equivalent, an introductory course in sign language and an introductory course in communication disorders. (Students may take these as general education electives.)

Required Courses

- 72.200 Introduction to Audiology
- 72.450 Clinical Observation
- 74.154 American Sign Language I
- 74.201 History, Education, and Guidance of the Deaf/Hard of Hearing
- 74.205 Introduction to Instructional Methods with the Deaf/Hard of Hearing
- 74.251 Phonetics

Students who anticipate applying for admission to the graduate program in education of the deaf/hard of hearing are strongly urged to elect the following courses:

Electives

- 74.155 American Sign Language II
- 74.254 The Deaf Culture
- 74.255 American Sign Language III
- 74.256 American Sign Language IV

- A bachelor's degree with a Q.P.A. of 2.8 in the education of the deaf/hard of hearing area of concentration and an overall Q.P.A. of 2.8 are required. If either Q.P.A. is below 2.8, the student will be admitted on a provisional basis and must earn a Q.P.A. of 3.0 or better upon completion of 9 to 12 semester hours in graduate-level courses. No Cs may be earned during the provisional period.

- Applicants must submit a one-page, handwritten letter, stating professional background, experience, and rationale for wanting to be admitted to this master's program.

- Three letters of reference from individuals who have knowledge of the applicant's academic and teaching background are required. For confirmation purposes, the letters must contain the name, address, position, and telephone number of the writer.

- Applicants must make arrangements with the program coordinator for an interview.

- The National Teacher Examination and/or the Graduate Record

Examination will be required of all applicants.

There is one entry point for full-time enrollment in this graduate program — summer semester. The application deadline for summer enrollment is March 15. Application for admission as a part-time student is not restricted and may be made at any time.

There is no quota for students interested in entering the program on a part-time basis. Part-time students are required to meet with the program coordinator to design a curriculum sequence and time line.

Retention

Graduate students are required to earn a Q.P.A. of 3.0 with a maximum of two Cs for retention in this master's program. If a C is earned in a practicum course, the course must be repeated and a grade of B or better earned.

Candidacy

Requirements for this program are the same as those for the School of Graduate Studies.

Graduation

Following is an example of a full-time curriculum sequence:

Summer Sessions (total of 12 weeks)

- 72.522 Aural Rehabilitation: Theory and Practice
- 74.564 Speech for the Deaf/Hard of Hearing
- 74.566 Language for the Deaf/Hard of Hearing I
- 74.568 Advanced American Sign Language

Fall Semester

- 74.560 Student Teaching with the Deaf/Hard of Hearing I
- 74.565 Problems and Trends in Education of the Deaf/Hard of Hearing

Faculty Research Interests

- Judith M. Hirshfeld, M.A., assistant professor. *Developing oral communication skills in deaf/hard of hearing children and counseling the deaf/hard of hearing individuals and their families*
- Gerald W. Powers, Ed.D., professor. *Admission procedures and criteria for graduate training programs*
- Samuel B. Slike, D.Ed., professor. *Teaching sign language and speechreading through videodisc technology*

- 74.567 Language for the Deaf/Hard of Hearing II
- 74.569 Curricular Subjects for the Deaf/Hard of Hearing
- Spring Semester*
- 74.570 Student Teaching with the Deaf/Hard of Hearing II

Summer Sessions (total of 6 weeks)

- 74.490 Counseling Needs of Communicatively Disordered Individuals and Their Families
- 74.584 Research in Education of the Deaf/Hard of Hearing

All graduate students must complete a departmental paper (thesis or nonthesis) and successfully pass a comprehensive examination administered during the semester the student plans to graduate.

Upon graduation, students are academically prepared to apply for licensure in Pennsylvania and to pursue state and national certification as a teacher of the deaf/hard of hearing. They are granted a provisional national certification by the Council on Education of the Deaf upon formal application.

Master of Science

Exercise Science and Adult Fitness

Program Coordinator: Linda M. LeMura, Ph.D.

(717) 389-4563

This program prepares students for advanced scholarly opportunities via doctoral study or employment in rehabilitation centers, corporate fitness, wellness programs, and senior citizen continuing care facilities. The program is interdisciplinary in nature; students complete courses in Exercise Science and the Biological Health Sciences. Additionally, clinical and research internships are required, which encompass the full spectrum of health, including rehabilitation, physiological

assessment, and training for optimal performance.

Quality of instruction in the classrooms and laboratories is characterized by faculty who are continuously engaged as active learners. The faculty bring an excitement and enthusiasm for scientific inquiry by directly involving their students in both scholarship and discovery. These activities are augmented by learning resources such as library support, both on campus and at nearby Geisinger Medical Center, computer support, and well-equipped human performance and physiology laboratories. With excellent facilities, highly qualified faculty, and practical field experiences that are integral to the program, the master's degree in Exercise Science and Adult Fitness provides strong preparation for successful careers in this burgeoning discipline.

Admission

A bachelor's degree in either health and physical education, the biological or allied health sciences, or a related field is required. Undergraduate deficiencies must be eliminated, without credit earned toward the degree, prior to admission to candidacy. Additionally, applicants must

have an undergraduate Q.P.A. of at least 2.5 and attain a minimum score of 50 on the Miller Analogy Test or 1,000 on the verbal and quantitative portions of the Graduate Record Examination. After completing 12 semester hours of graduate work, the student must apply for admission to candidacy. This application must be submitted before the completion of 15 semester hours of graduate work.

Candidacy

Requirements for this program are the same as those for the School of Graduate Studies.

Graduation

The Master of Science in Exercise Science and Adult Fitness requires 36 semester hours of which 6 to 12 semester hours in practicum are required for graduation. Additionally, attendance at the American College of Sports Medicine (ACSM) Exercise Test Technologist Workshop is required prior to graduation.

Graduate students admitted to candidacy for the Master of Science degree are required to complete a thesis. The student must confer with the assigned graduate adviser to select a thesis adviser. The thesis ad-

Faculty Research Interests

Linda M. LeMura, Ph.D., associate professor. *Energy metabolism, exercise electrocardiography, lipid metabolism*

Jerry K. Medlock, Ed.D., professor. *Cardiac rehabilitation, health education, coronary risk factors analysis*

Leon Szmedra, Ph.D., assistant professor. *Cardiovascular adaptations in heart disease, neuromuscular physiology*

viser serves as chairperson of the thesis committee. A second faculty member is selected from either the Health, Physical Education, and Athletics or the Biological and Allied Health Sciences departments. The third faculty member may be selected from any discipline within the university as appropriate to the thesis topic. The thesis topic must be approved by the thesis adviser and the graduate program coordinator. The completed thesis will be presented to the thesis committee, peers, and the university community.

Master of Science

Instructional Technology

Program Coordinator: Harold J. Bailey, Ph.D.

(717) 389-4506

The Master of Science in Instructional Technology (MSIT) program emerged to respond to the increasing need to prepare professionals who can integrate microcomputers and video technology into the educational and training environments of basic education. The MSIT program addresses the preparation of three types of professionals:

- Those who wish to enter a career in the training and development sector of business, industry, non-profit institutions, or government.
- Those who already work in business, industry, or health care settings as trainers and developers, but seek a formalized degree structured for their needs and further development
- Those who wish to become instructional technology resource specialists in private, public, or higher education.

The curriculum of the program concentrates on the application of the computer and other emerging technologies to education and training, with the emphasis directed towards the design, development, production, and evaluation of computer-based interactive multimedia courseware. Master's candidates have the opportunity to experience a variety of state-of-the-art interactive technology configurations through

an instructional systems approach.

The MSIT program at Bloomsburg University has become a nationally acclaimed, unique program for the preparation of "interactive multimedia technologists." This program integrates extensive experiences in instructional design and instructional computing with a more modest coverage of TV production/post production, communication skills, and human resource development. The eclectic nature of this program forces cooperative teamwork as students combine their theoretical academic learning with practical, hands-on projects that are being designed, developed, produced, and evaluated by the Institute for Instructional Technology.

Curriculum Overview

Students study a variety of issues related to the design and development of effective instruction, and then apply these principles in course projects. The program curriculum includes study in the following areas:

- Curriculum and Instructional Design — systems approach, curriculum and instructional materials, psychology of learning and screen design
- Instructional Computing — computing literacy, programming and authoring, computer-assisted instruction, computer-based interactive video, computer graphics
- Video Production and Post-Production — equipment, aesthetics, scripts and editing
- Technology — past and current technologies, emerging technologies and networking
- Human Resource Development — teamwork, interpersonal communication, organizational psychology, project management and organization training

Admission

For Instructional Technology, standardized tests such as the Graduate Record Examination (GRE) and the Miller Analogies Test (MAT) are not required for admission, but are required for candidacy.

Persons who desire graduate level university instruction but do not intend to earn a master's degree may be admitted as non-degree students provided that they provide proof of graduation from an accredited undergraduate college or university. No more than 12 semester hours earned as a non-degree student may be later applied toward a master's degree except by special permission.

Special admission requirements for the MSIT program include the following:

- A personal interview with one or more of the MSIT faculty.
- Three letters of recommendation.
- A 1- to 2-page paper describing the applicant's interest in instructional technology.



Faculty Research Interests

Harold J. Bailey, Ph.D., professor. *Instructional design, computer-based instruction, interactive technologies, interactive video, project management*

Timothy L. Phillips, Ph.D., assistant professor. *Instructional design, interactive graphics, instructional computing and authoring tools*

Nancy E. Thornton, Ph.D., assistant professor. *Instructional design, appreciation of learning theory to instruction, educational evaluation, cognitive psychology*

June L. Trudnak, Ph.D., professor. *mathematics education, instructional design, computer programming and design of hypermedia applications*

- A minimal TOEFL score of 570 for international students.

Graduation

Persons who hold a bachelor's degree in any discipline from an accredited college or university may become degree candidates and proceed to the master's degree by completing a minimum of 33 semester hours of coursework including either an internship or master's thesis. All courses are 3 semester hours unless otherwise indicated.

Required Courses (18 semester hours)

- 57.550 Instructional Design (fall, spring)
- 57.551 Advanced Instructional Design (fall, spring)
- 57.570 Introduction to Interactive Technologies (fall, summer)
- 57.573 Authoring Systems I (fall, spring)
- 57.575 Managing Multimedia Projects (fall, spring)
- 27.511 TV Production and Design (summer)

One course from the following:

- 25.445 Organizational Communication (spring)
- 25.585 Communication Interviewing Techniques
- 25.586 Communication Training in the Organization
- 25.587 Conflict and Communication: Small Group Discussion
- 48.453 Organizational Psychology (spring)
- 93.566 Organizational Behavior (summer)
- 93.583 Human Resource Development (fall)

Elective Courses (6 semester hours minimum)

Select three courses from the following:

- 57.560 Interactive Graphics (fall, summer)
- 57.572 Designing Multimedia with Hypercard (fall, summer)
- 57.574 Authoring Systems II (fall, summer)
- 09.580-589 Special Topics

Final Requirement (one course)

- 57.590 Graduate Internships (3 credits)
- 57.599 Graduate Thesis (6 credits)

Master of Science

Nursing

Program Coordinator: Patricia A. Torsella,
D.N.Sc., R.N., C.S.
(717) 389-4419

The goals of this program are to assist students in selected areas of advanced clinical practice to:

1) Use advanced knowledge, critical thinking and communication in the competent use of nursing process, therapeutic interventions and technology to provide nursing services designed to promote, restore and maintain health and facilitate the progress of a diverse client population toward a goal of optimal wellness.

2) Employ the multifaceted roles of practitioner, educator, researcher, leader/manager in accord with ANA standards, to coordinate and expand upon nursing care services designed to impact the delivery of health care and promote attainment of client goals.

3) Participate in learning activities designed to enhance personal growth and professional role development.

Graduates of this program:

- Synthesize advanced knowledge of nursing and related disciplines to improve the practice of professional nursing.

- Demonstrate advanced competence in using nursing process to formulate clinical decisions designed to promote, restore and maintain health and attain client goals.

- Use advanced knowledge, critical thinking and communication in the competent use of therapeutic interventions and technology to assist diverse clients in a variety of settings to attain an optimal level of wellness.

- Collaborate with clients, support systems and other providers who influence the health care environment to coordinate services designed to improve the quality of health care, provide for continuity of care and assist the client to effectively interface with the health care system.

- Validate, use and extend research to improve the quality of professional nursing practice.

- Develop teaching plans designed to meet the identified needs of clients and other designated populations.

- Employ leader/manager knowledge and skills to impact the delivery of health care and promote attainment of client goals.

- Serve as consultants for clients and other consultees to facilitate change for positive growth.

- Engage in social and political action designed to effect change in policies that affect health care.

- Operationalize personal and professional goals designed to enhance growth in role development.

Bloomsburg University offers a Master of Science in Nursing (M.S.N.) with specialty areas in community health, and adult health and illness. The programs of study prepare graduates as clinical specialists in the ad-

Faculty Research Interests

M. Christine Alichne, R.N., Ph.D., professor. *Professional socialization of nursing students, relationship between interpersonal and personal values, predictors of success in nursing, cardiopulmonary nursing, advanced nursing practice and community/university nursing centers.*

Mary A. Gavaghan, R.N., Ed.D., associate professor. *Causal attributions, coping, and needs of cancer patients; practices of breast self-examination and psychosocial factors as possible determinants of breast cancer prebiologically; and information desired by patients undergoing lymphangiography.*

Annette Gunderman, R.N., M.S.N., associate professor. *Adult continuing education, women's health, adult health and illness.*

Nancy A. Onuschak, R.N., D.Ed., professor. *Perception of factors affecting quality of therapeutic nursing care, cost-benefit analysis of clinical education in B.S.N. students, and psychiatric and mental health nursing research topics*

Patricia A. Torsella, R.N., D.N.Sc., C.S., assistant professor. *Mentoring: analysis of the concept for nursing education, community health nursing, and nursing education topics and elderly.*

Dorette Welk, R.N., Ph.D., professor. *Attitudes in postmyocardial infarction patients regarding transfer setting, educator perception and use of pattern recognition principles in baccalaureate nursing programs, and general*

vanced practice of professional nursing and provide the foundation for education at the doctoral level. A minimum of 39 semester hours is required in each of these two specialty areas for graduation. The master's degree program is accredited by the National League for Nursing.

Community Health Option

This option is designed to prepare the graduate as a clinical specialist in Community Health Nursing. The main focus is on preparing the graduate to assume a leadership /management role in the area of community health nursing, working with special populations and communities to promote and improve community health care. Students develop competence in their multifaceted role as a clinical specialist and use their advanced knowledge, responsible decision-making, innovative problem-solving and communication to promote change in the community. As advanced practitioners, they engage in the competent use of the nursing process to diagnose the health problems of special populations, design programs to facilitate the progress toward the goal of optimal wellness within the community environment, and to impact the delivery of health care in the community. As advanced practitioners, they serve as consultants and engage in social, ethical and political actions to influence and initiate change in health care policy in order to promote the health of communities.

Adult Health and Illness Option

This option is designed to prepare graduates to assume a leadership/manager position as a clinical specialist in the area of adult health and illness. Through the development of competence in their multifaceted role as a clinical nurse specialist, students engage in responsible decision-making, innovative problem-solving, and independent/interdependent practice designed to meet the changing health needs of a specific adult population. Students use advanced knowledge, critical thinking and communication skills in the competent use of therapeutic interventions and technology to assist the adult client in attaining wellness. As advanced practitioners, the students serve as a consultant for clients and others to impact the delivery of health care for a specific adult population. Social, ethical and political actions are emphasized to initiate and affect change regarding the development of health care policy and its effect on health care delivery for a targeted adult population

Full-Time or Part-Time Study

Students may select either full-time or part-time study depending upon their individual needs. Classes are scheduled in late afternoon and evening in order to facilitate progression in either type of study. Professional Nurse Traineeship Grants from the U.S. Department of Health and Human Services are available for full-time study on a competitive basis. Graduate assistantships are also available to students in the program.

Preceptors

In the clinical courses in each specialty area, students have the opportunity to work with a preceptor who is a master's prepared clinical nurse specialist in the area of the student's specialization. The student works with the faculty adviser to select the preceptors based upon the program and the individual student's goals.

Clinical Placements

Students are placed in major medical and health care centers in Pennsylvania as well as with the National Institutes of Health (NIH) and community agencies in a variety of settings where holistic health care is delivered, such as hospice care and other specialized health practices. The selection is made jointly by the faculty adviser and the individual student.

Admission

In addition to meeting the general admission requirements for the School of Graduate Studies, applicants must:

- Document a bachelor's degree with a major in nursing from a program accredited by the National League for Nursing, an undergraduate Q.P.A. of 3.0, and successful completion of undergraduate courses in statistics, research, and health assessment (as either integrated content or as a separate course);
- Be licensed to practice nursing in the United States;
- Have received a minimal composite score of 1,200 on the Graduate Record Examination (GRE);
- Submit three letters of professional recommendation;
- Submit a narrative detailing personal and professional goals for graduate education;
- Have completed a minimum of one-year postbaccalaureate clinical practice in the applicant's chosen area of clinical specialty prior to admission for candidacy.

mission for candidacy.

Following a preliminary review of admission materials, qualified students are invited for personal interviews with members of the faculty. Applicants who do not meet the identified admission requirements will be considered on an individual basis. Applicants may request a preliminary interview with the program coordinator for clarification. These applicants may be admitted on a provisional basis until such time as identified prerequisites are completed to ensure knowledge and skills equivalent to a sound baccalaureate nursing base.

Retention

In addition to meeting the general retention requirements for the School of Graduate Studies, students in the M.S.N. program who have been admitted to candidacy must maintain a minimal Q.P.A. of 3.0, receive a minimum grade of B in advanced clinical courses, and complete the program within six calendar years. Failure to meet these requirements will result in the student being transferred to non-degree status (Category 510).

Candidacy

Requirements for candidacy are the same as those for the School of Graduate Studies. Requests for admission to candidacy are submitted to the option adviser and subsequently are reviewed and recommended by the Nursing Departmental Graduate Council for approval by the Assistant Vice President for Graduate Studies and Research.

Graduation

Required Core Courses (18 semester hours)

- 82.500 Applied Statistics for Health Professionals
- 82.501 Role Theory and Development in Nursing Practice
- 82.502 Conceptual Role Models
- 82.503 Nursing Research I
- 82.505 Physical Assessments for Advanced Nursing Practice
- 82.550 Nursing Research II

Clinical Specialization Courses (15 semester hours)

- 82.504 Advanced Physiology for Nursing Practice (Adult Health Option)
- 82.506 Epidemiology: Concepts and Principles for Contemporary Practice (Community Health Option)
- 82.511 Community Health Nursing I
- 82.512 Adult Health and Illness Nursing I
- 82.531 Community Health Nursing II
- 82.532 Adult Health and Illness Nursing II

Elective Courses (6 semester hours)

Graduate-level courses to fulfill elective requirements will be chosen by the student and an adviser based on career needs, clinical option requirements, and role development of a clinical nurse specialist. Electives may be selected from graduate courses in psychology, sociology, political science, business, communication disorders, speech communication, education, and nursing. The following courses are considered nursing electives when not required for the clinical option:

- 82.504 Advanced Physiology for Nursing Practice
 82.506 Epidemiology: Concepts and Principles for Contemporary Nursing Practice
 82.513 Management and Organizational Behavior in Advanced Nursing Practice
 82.533 Management and Organizational Behavior in Health Care Delivery System

Projection of Part-Time Course Sequence

First Year

- Fall 82.501 Role Theory and Development in Nursing Practice
 Spring 82.502 Conceptual Models in Nursing
 Summer 82.503 Nursing Research I
 82.500 Applied Statistics for Health Professionals

Second Year

- Fall 82.504 Advanced Physiology for Nursing Practice
 -OR- Elective
 Spring 82.505 Physical Assessment for Advanced Nursing Practice
 -OR- Elective
 Summer 82.506 Epidemiology: Concepts and Principles for Contemporary Nursing Practice
 -OR- Elective(s)

Third Year

- Fall 82.511 Community Health Nursing I
 -OR-
 82.512 Adult Health and Illness Nursing I
 Spring 82.531 Community Health Nursing II
 -OR-
 82.532 Adult Health and Illness Nursing II

Fourth Year

- Fall 82.550 Nursing Research II

Optional Spring: 82.590 Thesis

Projection of a full-time sequence of courses is possible over a two-year calendar.

Research

Students have the opportunity to work collaboratively with faculty and preceptors in research endeavors. They also validate, utilize, and extend research in all coursework and through the development of a research proposal, which is required for graduation, or through a thesis, which is optional.

The second research course, Nursing Research II, serves as the culminating experience in the program. The students synthesize knowledge drawn from core and clinical coursework to expand on the research prospectus developed in Nursing Research I. In developing a comprehensive research proposal, students conduct an extensive review and critique of relevant literature, formulate a conceptual or theoretical framework and select an appropriate research design and methodology. The

course is presented in a seminar format with an open forum defense of the proposal, serving as a comprehensive examination.

Clinical Policies

Prior to enrolling in advanced clinical courses, graduate students must be candidates for the degree. As set forth in the contractual agreements with agencies serving as clinical practicum sites, all graduate students must have the following documentation on file with the Department of Nursing prior to participating in the clinical component:

- verification of current cardiopulmonary resuscitation certification;
- verification of current professional liability insurance for a minimum of \$300,000;
- a comprehensive health examination;
- verification of current Pennsylvania R.N. licensure;
- a current resumé.

Clinical Sites and Preceptors

Lehigh Valley Hospital, Allentown, Pa.

Patricia Campbell, M.S.N., R.N.

Linda Petrine, M.S.N., R.N.

Berwick Hospital Center Home Health Care Services, Berwick, Pa.

Marilyn Gibbons, M.S.N., R.N.

Berwick Hospital Center, Berwick, Pa.

Carolyn Martin-Shaw, M.S.N., R.N.

Christine Zimmerman, M.S.N., R.N.

Carlisle Hospital, Carlisle, Pa.

Susan Walsh, M.S.N., R.N.

Columbia-Montour Home Health/Visiting Nurse Assoc.

Laureen Comstock, M.S.N., R.N.

Jane Gittler, M.S.N., R.N.

Hahnemann University, Philadelphia, Pa.

Private practice associated with Lycoming OB and GYN

Associates, Nurse-Midwifery Service, Williamsport, Pa.

Rosalie F. Kaleda, M.S.N., R.N., C.N.P.

Maternal and Family Health Services, Inc., Wilkes-Barre, Pa.

Cheryl Fuller, M.S.N., R.N., C.N.P.

The Milton S. Hershey Medical Center of The Pennsylvania State University, Hershey, Pa.

Mary Kathryn Reeves-Hoche, M.A., M.S., R.N.

Wendy Wilkinson, M.S.N., R.N.

National Institutes of Health, Department of Health and Human Services, Bethesda, Md.

Diane Tompkins, M.S.N., R.N.

Polyclinic Medical Center, Harrisburg, Pa.

Trish Bennett, M.S.N., R.N.

Linda Bennett, M.S.N., R.N.

Sandra Christensen, M.S.N., R.N.
 Joanne Ferrari, M.S.N., R.N.
 Linda Haldeman, M.S.N., R.N.
 Susan Hamilton, M.S.N., R.N.
 Ann Meyers, M.S.N., R.N.
 Terri Williams, M.S.N., R.N.

Presbyterian Medical Center; Philadelphia, Pa.
 Barbara Gleeson, M.S.N., R.N.
 Sandra Hicks, M.S.N., R.N.

Veterans Administration Medical Center; Wilkes-Barre, Pa.
 Louise Guszick, M.S., R.N., C.R.N.P.

Harrisburg Hospital, Harrisburg, Pa.

Melanie Duffy, M.S.N., R.N.

University of Pittsburgh Medical Center; Pittsburgh, Pa.

Professional Home Health Care Agency (Affiliate of Polyclinic Medical Center)

Pat Cassel, M.S.N., R.N., C.R.N.P.
 Cynthia Tyger, M.B.A., R.N., C.N.A.A.

The Nurse's Center; Bloomsburg, Pa.
 Deborah Traugh, M.S.N., R.N., C.N.P.

Student Health Center; Bloomsburg University, Bloomsburg, Pa.

Cindy Harris, M.S.N., R.N., C.R.N.P.

Master of Science

Special Education/ Exceptionalities

Program Coordinator: Carroll J. Redfern, Ed.D.
 (717) 389-4119

This program provides an opportunity for individuals to pursue two different master's programs. A Master of Science in Special Education is for those who hold certification in special education. It is intended to improve the competence of the student's work for further graduate work in the field of special education. The Masters of Exceptionalities program is for professionals who are not currently working in the special education field, but who wish to expand their knowledge and develop new skills for working with the exceptional person. Certification in Special Education may also be pursued through the Masters of Exceptionalities program.

Admission

Applicants seeking admission to the master's degree program in special education must satisfy the general admission requirements for the School of Graduate Studies. The following additional criteria are also required:

- A one-page, handwritten letter of intent stating professional background, experience, and rationale for wanting to be admitted to a specific department;
- Two letters of recommendation;
- Resume;
- An interview with the program coordinator;
- Graduate Record Examination; and

- An undergraduate cumulative Q.P.A. of 2.8. If average is below 2.8, the student will be admitted as provisional, which must be eliminated after completion of 12 to 15 semester hours in which a Q.P.A. of 3.0 or better is earned. No Cs may be earned during a probationary period.

Retention

A Q.P.A. of 3.0 is required for retention in the program. A maximum of two Cs is permissible. If a C is earned in a practicum course, it must be repeated with a grade of B or better within a time frame determined by the area of concentration.

Graduation

Students seeking the M.S. in Special Education must complete a minimum of 30 semester hours with a cumulative Q.P.A. of 3.0. Students may opt to complete a thesis or a departmental paper, or take 6 additional semester hours — yielding a total of 36 semester hours — in place of the thesis or departmental paper.

Master of Science in Special Education

Prerequisite: B.S. in Special Education and certificate

Graduation requirements Choice A: Thesis option — 24 hours course work plus six credits for thesis. Choice B: Department paper option — 30 hours of course work plus department paper. Choice C: Course work option — 36 hours course work.

Core requirements (9 credits)

- 70.565 Reading and Interpreting Research in Special Education
 OR
 79.591 Research in Education
 70.575 Seminar in Current Issues in Special Education
 70.591 Practicum in Special Education

Free Electives (a minimum of 12 credits must be taken in special education. *Note: one graduate methods course is recommended if previous methods course has not been taken in the last five years.*)

- 70.501 Administration and Supervision in Education of Exceptional Individuals
- 70.502 Mental Retardation
- 70.506 Introduction to Early Intervention
- 70.522 Assessment and Remediation of Mathematics for Special Needs Students
- 70.526 Transition for Individuals with Special Needs
- 70.533 Language Arts for Students with Special Needs
- 70.534 Learning Disabilities
- 70.544 Diagnostic and Remedial Techniques
(recommended if previous assessment course older than five years)
- 70.547 Technology for Exceptional Individuals
- 70.550 Teaching Methods for Individuals with Mild and Moderate Disabilities (Elementary)
- 70.551 Teaching Methods for Individuals with Mild and Moderate Disabilities (Secondary)
- 70.556 The Mentally Gifted Individuals
- 70.562 Issues of Individuals with Physical Disabilities
- 70.570 Foundations of Behavior Disorders
- 70.572 Seminar in Behavior Disorders
- 70.596/597/598 Special Workshop
- 70.599 Master's Research Paper
- 72.572 Augmentative Communication
- 74.490 Counseling Needs of Communicatively Disordered Individuals and Their Families
- 74.501 Introduction to Sign Language

With adviser approval you may also choose additional elective graduate courses in related fields such as reading, early childhood, curriculum and foundations, psychology, and sociology.

Master of Science in Exceptionalities

Graduation requirements — Choice A: Thesis option — 24 hours course work plus six credits for thesis. Choice B: Department paper option — 30 hours of course work plus department paper. Choice C: Course work option — 36 hours course work.

Core requirements (9 credits)

- 70.516 Psychology of Exceptional Individuals
- 70.565 Reading and Interpreting Research in Special Education
OR
- 79.591 Research in Education
- 70.575 Seminar in Current Issues in Special Education

Free electives (a minimum of 12 credits must be taken in special education. *Note: for certification to teach the mentally/physically handicapped, all starred courses or their equivalent must be taken.*)

- 70.501 Administration and Supervision of Education for Exceptional Individuals
- *70.502 Mental Retardation
- *70.506 Introduction to Early Intervention

Faculty Research Interests

- Arthur R. Crowell Jr., Ph.D., associate professor. *Mental retardation, learning disabilities, administration.*
- Mary B. Hill, Ph.D., professor. *Special education research and technology*
- Kenneth P. Hunt, Ph.D., professor. *Behavior disorders, applied behavior analysis, behavior management*
- Sheila Dove Jones, Ed.D., assistant professor. *Early childhood, assessment, inclusive practices*
- Michael J. Karpinski, Ph.D., assistant professor. *Exceptionalities, vocational education, transition*
- Ann L. Lee, Ed.D., associate professor. *Inclusion, early childhood, language arts*
- Carroll J. Redfern, Ed.D., professor. *Exceptionalities, mental retardation, supervision*
- Joseph M. Youshock, Ed.D., professor. *Exceptionalities, vocational education, transition, curriculum development on secondary levels*

- *70.522 Assessment and Remediation of Mathematics for Special Needs Students
- *70.526 Transition for Individuals with Special Needs
- *70.533 Language Arts for Students with Special Needs
- *70.534 Learning Disabilities
- *70.544 Diagnostic and Remedial Techniques
- *70.550 Teaching Methods for Individuals with Mild and Moderate Disabilities (Elementary)
- *70.551 Teaching Methods for Individuals with Mild and Moderate Disabilities (Secondary)
- *70.562 Issues of Individuals with Physical Disabilities
- *70.570 Foundations of Behavior Disorders
One Graduate Reading Course
- 70.501 Administration and Supervision of Education for Exceptional Individuals
- 70.556 The Mentally Gifted Individual
- 70.572 Seminar in Behavior Disorders
- 72.572 Augmentative Communication
- 74.490 Counseling Needs of Communicatively Disordered Individuals and Their Families
- 74.501 Introduction to Sign Language
- 70.596/597/598 Special Workshop
- 70.599 Master's Research Paper
- 70.591 Practicum in Special Education or student teaching, depending on student background

With adviser approval, you may also choose additional elective graduate courses in related fields such as reading, early childhood, curriculum and foundations, psychology, and sociology.

Master of Science

Speech Pathology

Program Coordinator: G. Donald Miller, Ph.D.

(717) 389-4436

The graduate program in speech pathology prepares students for clinical practice with a variety of communication disorders and in a variety of clinical settings. The program is heavily based on clinical experience both in our in-house clinic and culminating with a full semester of externship practicum in a clinic, hospital, or school setting.

Admission

In addition to meeting the general admission requirements for the School of Graduate Studies, applicants for the master's degree program in speech pathology must meet the following specifications:

- Applicants are required to submit a one-page, typed letter detailing their professional background, experience, and rationale for wanting to be admitted to the program in speech pathology.
- Applicants are required to submit three letters of recommendation from references who have knowledge of their academic and clinical background. This information must include the name, address, position, and telephone number of each reference.
- Applicants must have a bachelor's degree from an accredited institution with a major in communication disorders and a minimum Q.P.A. of 2.8. Applicants whose major is in an area other than communication disorders will be required to satisfactorily complete certain academic and practicum deficiencies. These will be prescribed by faculty following analysis of the individual's transcript.
- A minimum combined score of 1,450 on the verbal, quantitative and analytical subtests of the Graduate Record Examination is required of all applicants.



Faculty Research Interests

- Dianne H. Angelo, Ph.D., associate professor. *Clinic, clinical methods, augmentative communication*
- Ronald R. Champoux, Ph.D., professor. *Neurogenic disorders of speech and language, orofacial disorders of speech, clinic*
- Robert J. Lowe, Ph.D., associate professor. *Phonology, phonetics, speech science, clinic*
- Julia M. Weitz, Ph.D., assistant professor. *Normal language, language disorders in children*

Retention

Graduate students must maintain a Q.P.A. of 3.0 with a maximum of two Cs throughout the graduate program. If a grade of C is earned in a clinic course, the course must be repeated. To progress in graduate school, students must make application for admission to candidacy after they have completed 12 to 15 semester hours of coursework.

Graduation

The graduate program in speech pathology consists of a minimum of 42 semester hours with most courses being required. Clinical experience is considered necessary and inseparable from the existing course sequence. It becomes an important step in the development of a competent clinician, linking the classroom and textbook information with clinical experience, certification, and eventual employment in the field.

Required Courses

- 72.550 Adult Aphasia
- 72.552 Preschool Language Disorders
- 72.554 Stuttering
- 72.556 Phonology
- 72.558 Clinic I
- 72.560 Voice Disorders
- 72.562 Language Disorders of School-aged Children
- 72.565 Speech Disorders in Adults and Children
- 72.566 Clinic II
- 72.576 Clinic III
- 72.580 Communication Disorders of the Traumatically Head Injured
- 72.582 Research in Speech and Language Pathology
- 72.584-586 Field Experience I & II

Elective Courses

- 72.530 Fundamentals of Audiology
- 72.568 Speech Habilitation in the Schools
- 72.570 Adult II - Secondary Language Disorders
- 72.572 Augmentative Communication
- 72.574 Seminar in Communication Disorders
- 72.590 Independent Study and Research
- 72.591 Independent Study and Research
- 72.592 Workshop in Audiology and/or Speech Pathology
- 72.593 Workshop in Audiology and/or Speech Pathology
- 72.594 Workshop in Audiology and/or Speech Pathology
- 72.599 Master's Thesis

Curriculum and Instruction (N, K-12)

Supervisory Certificate Programs

Program Coordinator: John R. Hranitz, Ed.D.

(717) 389-4030

The Supervisor of Curriculum and Instruction Certificate Programs include the supervisor of curriculum and instruction certificate and the supervisory (N, K-12) certificate programs designed for supervisors in an area of specialization. These are designed for individuals seeking certification with district-wide responsibilities that includes designing, coordinating, improving, evaluating, and extending instruction from N to 12.

Admission

- Candidates must provide proof of a valid Pennsylvania teaching certificate.
- Candidates must provide evidence of at least five years of satisfactory teaching experience. (Experience on an emergency certificate or an intern certificate is not acceptable.)

Program Requirements

Candidates must complete a minimum of 36 semester hours at the graduate level from seven areas of competency.

- Curriculum and instruction—theory, design, and development
- Curriculum and early childhood, elementary, middle, and secondary education
- Research
- Supervision, management, and administration
- Group dynamics
- School law and finance
- Practicum — field experience

Supervisory (N, K-12)

This program is designed for the person with primary responsibility supervising and directing the activities of professional and non-professional employees in given fields.

Areas of Specialization

Curriculum and Instruction	36 semester hours
Early Childhood Education	30 semester hours
Elementary Education	30 semester hours
Reading	30 semester hours
School Health Service	30 semester hours
Secondary Education	30 semester hours
Communication	30 semester hours
Foreign Languages	30 semester hours
Mathematics	30 semester hours
Science	30 semester hours

Social Studies

30 semester hours

Special Education

21 semester hours

Prerequisites for Admission

- Certification in the area for which supervisory certification is sought.
- At least five years of satisfactory teaching experience in the field for which certification is sought. (Valid certificate in the field is required)

Program Requirements

A minimum of 30 semester hours of graduate-level courses from the following areas:

- Management and administration
- Principles and practices in school supervision
- School law and finance
- Group dynamics
- Research techniques
- Curriculum development
- Practicum — field experience

Cooperative Doctoral Program

Bloomsburg offers a Doctorate of Education in cooperation with Indiana University of Pennsylvania (IUP). This is a cooperative doctoral program in elementary education that combines the resources of both institutions.

The program includes areas of concentration in:

- curriculum and supervision;
- administration;
- reading;
- early childhood education;
- educational psychology; and
- special education.

Students take courses at both Bloomsburg and IUP, and the doctoral committee guiding the dissertation consists of faculty from both institutions.

If you are interested in this doctoral degree program, you should contact William S. O'Bruba or John R. Hranitz at Bloomsburg University, Bloomsburg, PA 17815.

Interdisciplinary Studies

Interdisciplinary courses are planned by more than one department or program. The courses are sometimes taught by teams of faculty members. Students should consult with their advisers to determine the appropriateness of these courses for their particular degree programs.

Course Descriptions

Graduate Courses



Course Codes

Code	Field of Study	
91.	Accounting	40
46.	Anthropology	40
30.	Art	40
31.	Art History	40
32.	Art Studio	41
72.	Audiology/Speech Pathology ...	42
50.	Biology	43
90.	Business Education	45
23.	Communication	45
25.	Communication Studies	45
40.	Economics	45
60.	Educational Foundations	46
62.	Elementary and Early Childhood Education	47
96.	Finance	48
05.	Health and Physical Education ..	48
80.	Health Sciences	48
42.	History	48
92.	Information Processing	49
57.	Instructional Technology	49
09.	Interdisciplinary Studies	49
98.	Law and Legal Elements	50
93.	Management	50
55.	Marine Science	50
97.	Marketing	51
27.	Mass Communications	51
53.	Mathematics and Computer Science	51
82.	Nursing	45
94.	Office Systems	53
54.	Physics	53
44.	Political Science	53
79.	Professional Studies	54
48.	Psychology	54
63.	Reading	54
65.	Secondary Education	55
45.	Sociology	55
70.	Special Education	56
74.	Studies in Hearing Loss	57

Note: Semester hours shown in parentheses after course title; prerequisites, if any, are indicated at the end of each course description

Accounting (Code 91)

91.501 Financial Accounting (3)

Emphasis on asset valuation, income determination, and financial accounting principles, with selected topics from the cash flow statements and interpretation of financial statements.

91.502 Advanced Financial Accounting (3)

Advanced problems in consolidated statements, stockbroker's equity, partnerships, fiduciary accounting, and selected topics dealing with government units and nonprofit service organizations. Selected reference to professional literature and uniform CPA examination problems. *Prerequisite: 91.501*

91.503 Government & Fund Accounting (3)

Accounting principles and practices of governments and nonprofit institutions. Comparisons between accounting principles and practices which apply to governments and nonprofit institutions and those which are generally accepted in business.

91.521 Advanced Cost Accounting (3)

Provides a thorough understanding of the basic concepts and practical procedures of reporting cost information to business management. Special emphasis is placed upon the use of budgetary control and budget analysis; the use of standard costs; the relevance of management's costs and profit responsibility reports; and the importance of capital expenditure planning and control.

91.522 Advanced Auditing Theory (3)

In-depth examination of the audit process, including compliance with GAAS, ethical considerations, EDP auditing, use of statistical analyses, as well as current problems facing the auditing profession.

91.523 Advanced Tax Accounting (3)

Presents an in-depth analysis of Federal and Pennsylvania tax codes with particular emphasis on corporations, estates, and trusts.

91.524 Managerial Accounting (3)

Introduction to the literature of accounting in management decision making. Theory, problem solving, case studies.

91.551 International Accounting (3)

Addresses the global nature of accounting in the current business environment.

91.552 Controllership Accounting (3)

An integrating course dealing with administrative problems of the accounting function; internal control system design and maintenance; relations with audit committee, CPA firm, and regulatory agencies pertaining to internal and external reporting.

91.599 Special Topics (3)

This course addresses a variety of topics in accounting and allows the instructor to focus on appropriate current topics in the accounting profession. Students should contact the instructor prior to enrollment.

Anthropology (Code 46)

46.440 Language and Culture (3)

The place of oral or non-oral language in human evolution and contemporary cultures. Topics discussed include: dialectal variation, discourse analysis, multilingualism, language, and cognition and the role of language in education.

46.450 Peoples and Cultures of South America (3)

Surveys introduction to the aboriginal, non-literate cultures of South America including the ecological background, archaeology, and cultural patterns.

46.470 History of Anthropological Thought and Theory (3)

Intensive survey of the leading methods and theories of anthropological and ethnological interpretation with special emphasis on the concept of culture and its practical application to modern problems.

Art (Code 30)

30.590 Current Theories of Art and Art Education (3)

Focuses on current theories of art and art education practiced in American schools with an emphasis on eventual application. A research paper or research project is required.

30.591 Advanced Visual Arts for Exceptional Children (3)

Stresses importance of art activity as a means of enriching and stimulating special children's awareness of themselves and their world. Emphasis is placed on those positive aspects for creative activity which the handicapped child possesses.

30.595 Master's Thesis (3-6)

Art History (Code 31)

31.560 Readings and Research in Contemporary Art History (3)

Detailed study of contemporary movements in art from the late 19th century to the present with readings and research for advanced students.

31.565 Readings and Research in American Art History (3)

Advanced study of the history of visual art in America.

31.570 Readings and Research in Early European Art History (3)

Research focuses on specific topics relating to the periods from Pre-Historic to Gothic.

31.571 Readings and Research in Later European Art History (3)

Examines period from the early Renaissance through French Impressionism.

31.575 Readings and Research in Oriental Art History (3)

Advanced survey of Oriental Art in the broadest sense of the word, the art, and architecture of the ancient Near East, Japan, China, and India. An introduction to both monuments and cultural ideas. Exposes advanced students to basic problems in chronology, style, and research methodology.

31.580 Readings and Research in Architectural Art History (3)

Advanced survey of the evolution of architecture in the Western World from the Pharaonic Egyptian period through the contemporary 20th century. Typical and outstanding examples of each period are discussed and researched. Imperative to an understanding of the physical structures studied is an analysis of the type of society and the rationale for the creation of such an architecture.

31.585 Art and Culture of France (3)

Study-tour of France with specific attention to French Art seen in relation to its social and cultural environment. Visits will be made to places of artistic and cultural interest in and around Paris and specific areas of France related to the particular course of study. Course also offered through the School of Extended Programs for advanced students and members of the community.

31.592 Readings and Research in Advanced Visual Aesthetics (3)

Advanced study of images and viable aesthetic

positions in the plastic arts emphasizing artistic and perceptual awareness and concern with environmental relationships.

31.595 Directed Study in Art History (3 or 6)

Advanced study of a topic in the area of art history. Intensive review of the scholarly literature in the field. A paper is required under the direction of a faculty adviser.

Art Studio (Code 32)

32.500 Advanced Ceramics I (3)

Requires students to define in writing their level of knowledge and competency, then prepare a plan of study that will allow for a direction of work. Students are responsible for making and firing their own work.

32.501 Advanced Ceramics II (3)

Students intensify their study of selecting a specialized problem relating to the experiences gained in Advanced Ceramics I.

32.502 Advanced Ceramics III (3)

Students continue to pursue an advanced and refined level of study in the discipline of creating an art object. A specialized problem relating to the experiences gained in the first two levels facilitates continuity in learning.

32.503 Advanced Ceramics IV (3)

Focuses on professional and philosophical attitude reflected in students' work. Students are required to have an exhibition of their work.

32.510 Advanced Drawing I (3)

Explores advanced drawing techniques and involvement of personal expression and imagery.

32.511 Advanced Drawing II (3)

Emphasis on the development of individual themes and projects.

32.512 Advanced Drawing III (3)

Focuses on personal expression and imagery for potential thesis statement — self-direction and innovation.

32.513 Advanced Drawing IV (3)

Concentration and production of drawings for a unified thesis statement.

32.520 Advanced Crafts I (3)

Advanced levels of experimentation with contemporary idioms in crafts design. Emphasis on highly professional concepts of form and methods and on investigation and refinement of techniques as a means of realizing significant

visual statements in crafts. Individualized instruction and independent planning for each student on all four levels.

32.521 Advanced Crafts II (3)

Individual concentration on specific media and related techniques. Intense involvement with refined design schemes, systems, and variations that are oriented toward an increasingly more defined singular direction in crafts.

32.522 Advanced Crafts III (3)

Highly independent and mature involvement with advanced concepts, methods, and processes in a specific crafts direction. Students should begin to develop a thesis presentation which should emerge from studio experiences, independent research, and from a wide, highly selective exposure to craft objects in museums, galleries, and private studios.

32.523 Advanced Crafts IV (3)

Continued involvement with advanced concepts in crafts. Concentration on completing final works for a one-man or a one-woman show. A definitive position paper reflecting a personal philosophy in crafts should be developed.

32.530 Advanced Graphics I (3)

Advanced level exploration of traditional and/or experimental printmaking methods. Emphasis on personalized imagery and technical proficiency.

32.531 Advanced Graphics II (3)

Exploration of advanced level printmaking including color and color registration procedures.

32.532 Advanced Graphics III (3)

Focuses on personalized forms for potential thesis statement. Students are expected to be innovative and proficient in technology of printmaking.

32.533 Advanced Graphics IV (3)

Concentration on the selected forms for a unified thesis statement.

32.540 Advanced Painting I (3)

Searches into purpose of painting with specific attention to traditional methods, i.e., glazing, egg tempera, and underpainting.

32.541 Advanced Painting II (3)

Exploration and different approaches of painting for individual expression. Emphasis on achieving in representational painting.

32.542 Advanced Painting III (3)

Continued development into maturity of individual style — with emphasis on mural

painting designed into architectural space.

32.543 Advanced Painting IV (3)

Mature fulfillment of personal expression. Painting should reflect continuity of intent and style. A selection of work is prepared for exhibition and thesis.

32.550 Advanced Sculpture I (3)

Requires students to define in writing their level of knowledge and philosophical direction, then prepare a plan of study that allows for a direction of work. Students are responsible for the completion of show quality pieces.

32.551 Advanced Sculpture II (3)

Emphasis on student experimentation while still being concerned with the concept form. Focus on growth and development of more positive philosophical ideas.

32.552 Advanced Sculpture III (3)

Students' work should reflect a significant transition from experimentations to a more definite direction in technique and aesthetic opinion.

32.553 Advanced Sculpture IV (3)

Students produce highly professional pieces of art while maintaining an awareness of their responsibility to society. This responsibility is fulfilled by an exhibition of each student work for a thesis.

32.580 Advanced Photography I (3)

Focuses on foundations of black and white photography for the advanced student. Emphasis on the technical controls of exposure and printing, research on historical and contemporary photographers and issues, and active participation in class critiques and lectures.

32.581 Advanced Photography II (3)

Students identify technical and conceptual problems and goals which they will pursue during the course. Written statement of intentions, self-evaluation of work, and a final portfolio required. Attendance at lectures and critiques is required.

32.582 Advanced Photography III (3)

Stresses proficiency in black and white exposure and printing. Students design a semester photographic project with a finished portfolio and exhibition as final goals. Continued class participation and development of technical skills expected.

32.583 Advanced Photography IV (3)

Students write a statement outlining their thesis work to be carried out during the course. A final thesis, exhibition, and portfolio are required.

32.595 Directed Study in Studio Art (3 or 6)

Continued development of a student's involvement in a studio area after satisfactory completion of four levels of advanced study in that area or in a related area of relevance. Consent of the instructor and the department chairperson are required.

Audiology/Speech Pathology**(Code 72)****72.500 Measurement of Hearing Loss (3)**

Studies anatomy and physiology of the hearing mechanisms. Covers etiology of hearing losses, interpretation of audiometric evaluations, and available rehabilitative procedures. Lab experience in the administration of clinical audiometric evaluation is provided.
Prerequisite: 72.200, 72.300.

72.502 Physiological Methods in Audiology: Brainstem Evoked Response Audiometry and Electronystagmography (3)

Study of the electrophysiologic techniques used to assess cochlear and retrocochlear function. Review of theories and clinical applications of vestibular tests, auditory brainstem evoked responses, and electrocochleography.

72.504 Hearing Aids and Auditory Training (3)

Theoretical and clinical analyses of literature in relation to educational and other rehabilitative measures available to individuals with serious organic and nonorganic hearing problems. Study, interpretation, and evaluation of modern instruments and tests included.

72.506 Externship: Clinical Practicum in Audiology I (3)

Hearing losses and deafness affecting the personal and socio-economic adjustment of individuals evaluated and treated through supervised study and experience. Externships may be arranged in approved private and public institutions.

72.508 Externship: Clinical Practicum in Audiology II (3)

See course description for 72.506

72.510 Research in Audiology (3)

Application of clinical and non-clinical research literature to the solution of diagnostic and treatment problems encountered in the general practice of audiology.

72.512 Seminar in Audiology: Special Problems (3)

Analysis, interpretation, and study of selected

problems in audiology and related disciplines that may include education, psychology, otology, rehabilitation, and other fields.

72.514 Seminar in Audiology: Industrial and Public Health Audiology (3)

Problems and programs of hearing conservation in public institutions and industries examined with special emphasis on legislation and medico-legal questions. Examines role and function of the public health and industrial audiologist.

72.516 Seminar in Audiology: Auditory Problems in Children (3)

Congenital and acquired hearing impairment in children examined with special emphasis on problems of differential diagnosis. Educational and social implication of hearing impairment in children discussed in conjunction with appropriate habilitative procedures.

72.518 Seminar in Audiology: Theoretical and Clinical Masking (3)

Neurophysiological and acoustic basis of problems of masking in auditory measurement explored and training offered in clinical masking procedures.

72.520 Educational Audiology (3)

Deals with the diagnostic and rehabilitative aspects of audiology in the educational setting. Examines the effects of hearing loss on speech and language development, the use of amplification in the schools, and educational audiology alternatives and models.

72.522 Aural Rehabilitation: Theory and Practice (3)

Habilitation/rehabilitation of the hearing impaired including auditory training, speech reading, hearing aids, assistive listening devices, communication strategies, and counseling. Emphasis on the sensory capabilities (auditory, visual, tactile, and auditory-visual training) of the hearing impaired with practicum lab.

72.524, 72.525, 72.526, 72.527, 72.528 Clinical Methods and Practicum in Audiology (3)

Emphasizes the Speech, Hearing, and Language Clinic as an integral part of the teaching-training program of the Department of Communication Disorders. The clinic provides outpatient diagnostic and therapeutic services for persons of all ages with speech, hearing, and language problems, including students, other members of the university community, and residents of the Bloomsburg area; serves as an extension of the classroom where students can apply and study evaluational procedures, therapeutic methods, techniques and materials, and the classification and etiology of speech and hearing

disorders; gives students an opportunity to relate text and lecture information to actual clinical cases under the close supervision of certified staff. Students gain experience in all aspects of remediation — diagnosis, therapy, counseling, and report writing — with a wide variety of clients.

72.530 Fundamentals of Audiology (3)

Designed for graduate students who are not audiology majors such as, but not limited to, students in speech pathology, education of the hearing impaired, reading, nursing, or special education. Presents a synopsis of the primary concepts in diagnostic and rehabilitative audiology. Attempts to relate the possible implications of the audiological topics to each of the fields of study listed above.

72.532 Instrumentation and Electronics: Clinical and Hearing Science (3)

Emphasis on solving practical equipment problems and understanding the operation of equipment used in clinical practice and hearing services.

72.550 Adult Aphasia (3)

Studies language disorders in brain-injured adults. Areas of concentration include history of aphasia, neurological basis for aphasia, symptomatology of aphasia, associated problems, intelligence and aphasia, evaluation of language and nonlanguage functions, and current rehabilitative procedures.

72.552 Preschool Language (3)

Reviews normal language acquisition with primary emphasis on the application of developmental information to the diagnosis and habilitation of language disorders in children.

72.554 Stuttering (3)

Studies the development, diagnosis, and treatment of stuttering disorders with equal emphasis on academic understanding and clinical management.

72.556 Phonology (3)

Examines language-based disorders of articulation. Emphasis on identification, description, and remediation of phonological disorders. Discusses enervative and natural phonological processes are discussed.

72.558 Clinic I (3)

Emphasizes the Speech, Hearing, and Language Clinic as an integral part of the teaching-training program of the Department of Communication Disorders. The clinic provides outpatient diagnostic and therapeutic services for persons of all ages with speech, hearing, and language problems, including students, other members of the university community, and residents of

the Bloomsburg area; serves as an extension of the classroom where students can apply and study evaluational procedures, therapeutic methods, techniques and materials, and the classification and etiology of speech and hearing disorders; gives students opportunity to relate text and lecture information to actual clinical cases under the close supervision of certified staff. Students gain experience in all aspects of remediation — diagnosis, therapy, counseling, report writing — with a wide variety of clients.

72.560 Voice Disorders (3)

Studies diagnosis and clinical management of functional and organic voice disorders.

72.562 Language Disorders of School Aged Children (3)

Explores disorders of later language acquisition and the interaction of language disorders with academic achievement, especially in the acquisition of literacy skills. Diagnostic assessments and treatment approaches are developed.

72.565 Disorders of Speech in Children and Adults (3)

Considers the neuromuscular and structural disorders that may affect the speech process as an aerodynamic mechanism. Special emphasis on the adult, cerebral palsy, cleft palate and dysarthrias.

72.566 Clinic II (3)

See course description for 72.558.

72.568 Speech Habilitation in the Schools (3)

Examines the profession of speech and language pathology in a school setting as it interacts with the other school-related disciplines. Emphasis is placed on facilitating of communication among the disciplines.

72.570 Adult II – Secondary Language Disorders (3)

Study of secondary disorders of language in adults. Special emphasis on disorders of right hemisphere damage, dementia, and schizophrenia.

72.572 Augmentative Communication (3)

Explores the field of augmentative communication and nonspeaking persons. Topics include candidacy issues, assessment, vocabulary configuration, symbol selection, and communication interaction training for language board and electronic device users. Examines current research practices and studies in communication interaction patterns of nonspeaking individuals.

72.574 Seminar in Communication Disorders (1-6)

Selected theoretical and clinical areas of communication disorders and related disciplines. Selected areas may include clinical and research topics pertaining to student needs.

72.576 Clinic III (3)

See course description for 72.558.

72.580 Communication Disorders of the Traumatically Head Injured (3)

Studies the nature of traumatic head injuries, emphasizing assessment and treatment of resultant cognitive communication disorders.

72.582 Research in Speech and Language Pathology (3)

Application of clinical and nonclinical research literature to the solution of treatment problems encountered in speech and language pathology.

72.584 Field Experiences I (3)

Considers special clinical problems of clients through advanced study and experience. Externships in approved institutions or schools. Problem areas and student practicums must be approved by a graduate adviser.

72.586 Field Experiences II (3)

See course description for 72.584.

72.590 Independent Study and Research (3)

Permits students to work under close faculty guidance on library study of specified areas or on individual research projects when particular needs cannot be met by registration in regularly scheduled courses.

72.591 Independent Study and Research (3)

See course description for 72.590.

72.592 Workshop in Audiology and/or Speech Pathology (3)

Temporary workshops/seminars designed to focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and technologies and related techniques and methodologies are concepts that might be incorporated into one of the workshops/seminars.

72.593 Workshop in Audiology and/or Speech Pathology (3)

See course description for 72.592

72.594 Workshop in Audiology and/or Speech Pathology (3)

See course description for 72.592

72.599 Master's Thesis (3)

Opportunity to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern. The problem area selected for the research project must be related to Speech Pathology/Audiology.

Biology (Code 50)

50.411 Radiation Biology (3)

Studies effects of radiation on living organisms; nuclear structure; fundamental properties of radiation; physical, chemical, and genetic effect on plants and animals from cells to whole organisms; application of radiochemicals in biological studies. Minimum of 4 hours per week including laboratory. *Prerequisite: 50.232, 50.233, 53.141, or consent of the instructor.*

50.432 Microbial Genetics (3)

Genetic analysis of microbes to provide insights into the molecular basis of gene action using viruses, bacteria, and lower eukaryotes. Topics include DNA and chromosome structure, gene organization and expression, genetic recombination, plasmids, transposons, and recombinant DNA. Three hours lecture/seminar per week. *Prerequisite: Consent of the instructor or two of the following courses — 52.341 Biochemistry, 50.242 General Microbiology, 50.332 Genetics.*

50.441 Cytogenetics (3)

Describes the structure and behavior of chromosomes and their effects on development and human genetic syndromes in reference to the effects of chromosome abnormalities on phenotype. Explores relationship between chromosomes, oncogenes and cancer. Laboratory studies include microscopic techniques, cell structure methods, and karyotype preparation. Two hours lecture, 2 hours laboratory per week. *Prerequisite: 50.332 or 50.333; or consent of the instructor.*

50.455 Environmental Microbiology (3)

Provides a practical application of knowledge of microorganisms, their effects on our environment, methods of control, sanitation regulations, and testing procedures. Field trips taken when practical. 1 hour lecture, 4 hours laboratory per week. *Prerequisites: 50.341 or consent of the instructor.*

50.457 Entomology (3)

Studies the physiology, morphology, behavior, classification, and general biology of the insects. A collecting period provides an opportunity for students to collect, mount, and properly display insects for study. Taxonomic emphasis limited to order and family. Equivalent to 5

hours per week including laboratory.

50.462 Plant Anatomy (3)

Outlines recent concepts of plant anatomy and historical consideration of classical researchers. Reviews structure, function, growth, and morphogenesis of the vascular plants. Addresses composition and growth of meristems and the phenomena of subsequent tissue differentiation to increase appreciation of development events. Describes anatomical organization by developmental and comparative methods in order to explain important cell, tissue, and organ relationships. Two hours lecture, 3 hours laboratory per week. *Prerequisite:* 50.120.

50.463 Biological Photographic Techniques (3)

Presents theory and practice of photography as applied to biology including negative and printmaking, gross specimen photography, copying, transparencies, filmstrips, autoradiography, nature work in close-ups, photomicrography, thesis illustrations, and other special techniques. Two hours lecture, 3 hours laboratory per week. Additional laboratory hours may be required.

50.521 Systematic Botany (3)

Morphology, taxonomy, and geographical distribution of vascular plants. Five hours per week including laboratory.

50.530 Evolution (3)

Studies the major concerns of the theory of evolution and contributions toward their solutions made by genetics, paleontology, systematics, and ecology. Three hours lecture per week.

50.531 Developmental Biology (3)

Study of progressive changes or transformations that occur during the existence of various plants and animals. Morphogenesis, differentiation, metabolism, and genetics control are considered. Experimental studies in the laboratory use living material obtained from the local region and living cells grown in the laboratory. Four hours per week including laboratory.

50.532 Molecular Genetics (3)

Study of macromolecular complexes, protein synthesis, gene regulation, and chromosome structure with emphasis on the eukaryotes. Three hours lecture/seminar per week.

50.550 Mycology (3)

A critical survey of the kingdom Fungi with emphasis on the Ascomycota, Basidiomycota, and Deuteromycota. Lectures cover morphology, physiology, biochemistry, cytology, genetics, systematics, ecology, and

evolution. Laboratory sessions stress comparative morphology of higher fungi, laboratory techniques, and field mycology. Two hours lecture/3 hours laboratory per week.

50.551 Conservation of Biological Resources (3)

Emphasis on the theory and practice of environmental conservation of biological resources and on applied ecology. Field trips to observe practices of wildlife, forest, and soil conservation. Five hours per week including laboratory.

50.552 Limnology (3)

Chemical and physical aspects of lakes, ponds, and streams and the nature of their biota. Laboratory and field investigations. Five hours per week including laboratory.

50.557 Biology of the Lower Vertebrates (4)

Study of fishes, amphibians, and reptiles embracing their anatomy and physiology, evolutionary history, zoogeography, and behavior. Field and laboratory work includes collection and identification of local fauna. Six hours per week including laboratory.

50.558 Fungal Ecology (3)

Provides a broad treatment of the ecology of fungi and an intensive examination of selected topics, i.e., fungal decomposition of wood, bark, and forest litter, ecology of aquatic and predaceous fungi, community structure of soil and/or dung fungi, and aspects of mycorrhizal symbioses. Laboratory stresses demonstration of basic principles, testing existing and formulating new hypotheses, and research techniques, and has a field component.

50.559 Ornithology (3)

General biology of birds and the study of bird identification in the field by song and sight. Studies birds of this region in relation to migration, time of arrival, and nesting. Two hours lecture, 3 hours laboratory per week. Off-campus study may be required.

50.561 Animal Behavior (3)

Presents description and classification of animal behavior, its evolution and biological function. Emphasizes mechanisms underlying behavior, especially species-typical behavior. Three hours lecture, 2 hours laboratory per week.

50.570 Medical Parasitology (3)

Presents life history, physiology, taxonomy, and morphology of parasites of medical importance to humankind. Special attention given to clinical aspects such as pathology, symptomatology, diagnosis, prevention, and treatment. Laboratory work stresses identification of parasitic disease through living and preserved material, proper handling of

specimens, and methods of professional patient interviewing.

50.571 Endocrinology (3)

Studies the individual glands of the endocrine system with respect to their development, morphology, function, regulation, and significance in integrating physiological activities of higher vertebrates. Three hours lecture per week.

50.572 Comparative Animal Physiology (3)

Compares higher vertebrate adaptations to various environments with respect to regulation of body fluid volume composition, core temperature, and nitrogen metabolism. Four hours per week.

50.573 Systemic Physiology (4)

Examines how normal body function is maintained by the precise control and integration of the specialized activities of various organ systems. Three hours lecture, 3 hours laboratory per week.

50.575 Cell Physiology (3)

Applies physical and chemical principles to cellular processes, biochemistry of cellular constituents, physiochemical environment; bio-energetics, intermediate metabolism. Three hours lecture/discussion per week.

50.576 Neuromuscular Physiology (3)

Examines normal physiology of the nervous and skeletal muscular systems; specifically studying cellular neurophysiology, muscle contraction, sensory physiology, motor control and their integration. Three hours lecture and discussion per week. Background in mammalian or systemic physiology, biochemistry and anatomy recommended.

50.590 Current Topics in Biology (3)

Critically examines a specialized topic in biology in a lecture/seminar format. Topic varies each semester offered. May be repeated once, provided that the topic is different. Three hours of lecture/seminar per week.

50.591 Directed Study in Biology (3)

An independent investigation, conducted under the direction of a member of the Department of Biological and Allied Health Sciences, in an area of biology in which the student has a particular interest. Student encouraged to identify a problem, employ an experimental design, and analyze collected data. Study of pertinent literature is required.

50.592 Master of Education Thesis (6)

Independent research and the preparation of a formal thesis in partial fulfillment of the requirements for the degree of Master of Education in Biology.

50.593 Master of Science Thesis (6)
Independent research and the preparation of a formal thesis in partial fulfillment of the requirements for the degree of Master of Education in Biology.

Business Education (Code 90)

90.551 Teaching Strategies in Business Education (3)

Presents teaching-learning environments based upon instruction which is geared to involve students in the assessment of their performance according to specific criteria. Emphasizes an increasing degree of professionalism and teacher competency in education today by using specific criteria for judging a teacher's effectiveness. Designed to develop teaching strategies and to evaluate the results of performance-based instruction.

90.560 Business and Office Education Workshop (1-3)

Addresses those educational ideas and experiences that encourage, support, and guide participants to acquire an increased understanding of the accumulated knowledge pertaining to the development of business skills, enhancement of business education as a profession, and determination of a business and office personnel's responsibility and role in the business world.

90.564 Business Education Program Management and Development (3)

Studies basic management and curriculum theory as it applies to business education program administration and supervision. Course approached from the perspectives of planning, organizing, staffing, directing, and controlling.

90.581 Seminar in Business Education (3)

Investigates and evaluates completed research in business education on particular topic area(s). Students submit written reports which are used as the basis for class discussions.

90.590 Master's Thesis in Business Education (6)

90.599 Special Topics in Business Education and Office Systems (3)

Studies current or advanced topics in the field of business teacher education and/or office systems not normally presented in other courses.

Communication and Communication Studies (Code 23 and 25)

23.501 Nature of Communication (3)

Examination, discussion, and evaluation of definitions and theories in the contemporary study of communication. Emphasizes developing competencies in recognizing philosophical assumptions, conceptual elements, and adequacy of communication theories.

23.502 Interpersonal Communication (3)

Surveys assumptions, models, theories, processes, and contexts related to the study of person-to-person communication. Studies ways of perceiving the communication of self to others as a means of strengthening social interactions.

23.598 Master's Research Project (3)

Independent research on a topic approved by the student's adviser(s).

25.445 Organizational Communication (3)

An explanation of theoretical and practical aspects of how communication patterns develop in organizations. Compares and contrasts international and intercultural aspects of organizing, as well as considering gender roles.

25.501 Introduction to Communication Research (3)

Overview of the fields of research in communication and an examination of the contributions of professional speech communication organizations, graduate studies, and research. Examines and evaluates historical, descriptive and experimental research studies. A pilot thesis is required to demonstrate competency in research techniques and use of bibliographical resources.

25.502 Rhetorical Criticism (3)

Studies theory and practice in the investigation and evaluation of symbolic acts created by people to influence thought and behavior.

25.585 Special Topics in Communication (3)

Specialized study by the class. Subject varies by semester.

25.586 Special Topics in Communication (3)

25.587 Special Topics in Communication (3)

25.590 Master's Research Paper (3)

25.597 Internship in Communication - Graduate (3)

Integrates classroom experience with practical

work experience in industrial, business or government work setting. Students must achieve academic integrity of their proposed experience and its relevance to coursework in the major. Contact departmental internship coordinator to obtain detailed information and forms.

Economics (Code 40)

40.513 Origin and Development of Capitalism (3)

Covers transition from feudalism to capitalism and the subsequent influence of leading capitalist institutions on industry, agriculture, commerce, banking, and the social movement.

40.514 Labor Economic Theory (3)

Emphasizes labor economic theory and its application in analyzing the issues of employment and inflation. Topics include growth of the labor force and its composition, wage theories and wage structures, trade unionism and income distribution, economics of poverty, minimum wage, and hour laws, and civil legislation. Occupational choices, job search, labor mobility, and human capital formation included. Students are exposed to research and measurement methodology to meet the research requirements of the course.

40.515 Public Policy and Business (3)

Focuses on public policies affecting the economy: historical, philosophical, and legal basis of regulation; the rationale of free enterprise. Intensive analysis of selected areas of economic policy related to government action.

40.531 Current Economic Problems (3)

Examines economic problems of current interest and concern to our society. Basic economic principles and theories and the thinking of recognized economists of the past and present as revealed in their published works.

40.532 Comparative Economic Systems (3)

Compares workings and performance of the major forms of economic organization: capitalist systems; the modern welfare states; state capitalism; communism; and socialism.

40.533 International Economic Policies and Relations (3)

Applies modern international economic and financial analyses to emerging contemporary problems of nations trading with one another. Selected topics include: customs unions; optimum currency area; international cartels; and flexible exchange rates. Focuses on impact of governmental and intergovernmental relations and regulations.

Educational Foundations (Code 60)**60.451 Pupil Personnel Services in the Public School (3)**

Comprehensive view of pupil personnel services in elementary and secondary schools; school attendance, school health programs, pupil transportation, psychological services, guidance services.

60.501 Major Philosophies of Education (3)

Interprets modern educational problems and trends in the light of philosophical viewpoints; study of primary sources of concepts and philosophies which have influenced and are influencing education.

60.502 School and Society (3)

Examines effects of social class, family, and community pressures and changing patterns and standards of life in our society on the school program. Fosters understanding of these pressures and patterns so that the teacher can work effectively to encourage the good and reduce the harmful impacts of social forces in relationships of children.

60.503 History of American Educational Theory (3)

Historical foundations of American educational theory with emphasis on individuals and schools of thought which have influenced and are influencing education in America.

60.505 Comparative Education (3)

Educational ideas and practices of various countries are examined for their impact upon our culture and education. Particular attention is given to the relationship of European educational programs to the American philosophy and practice of public education.

60.506 Urban Education (3)

Examines problems of the urban educational system. Emphasizes growth of sensitivity to the disadvantaged youngster, in-depth examination of current research findings in areas studied, teaching strategies, and resources and approaches to resolve major problems. Discussion of polarization in critical problem areas.

60.507 Using Newspapers in the Classroom (3)

Activity-centered course that provides an orientation to the use of the newspaper in various subject areas. Provides opportunities for the development of learning experiences.

60.512 Educational Media and Software (3)

Advanced study of the role of media in the educative process. Includes critical assessment of that role, selection of equipment and

materials for optimum utility, a review of contemporary literature in the field, and a production component involving advanced work in television, transparencies, slide-tape, and computer-assisted instruction.

60.514 Home, School and Community Relations (3)

Introductory course in public relations with special reference to elementary school. Develops a philosophy of partnership between home, school, and community. Considers principles, attitudes, and techniques to encourage community sharing in the planning of and assuming responsibility for good schools.

60.520 Guidance and Counseling for Exceptional Children (3)

Studies needs of exceptional children in public schools (including the academically talented); guidance and counseling techniques for teachers and guidance counselors in meeting those needs; guidance and counseling for exceptional children related to the total guidance counseling program.

60.527 Classroom Management and Effective Discipline (3)

Focuses on theories of effective discipline and classroom management. Methods of planning for the beginning of the year and for establishing an effective classroom organization to promote appropriate behavior throughout the year are reviewed. Current models and major theories of discipline are reviewed and evaluated.

60.530 Guidance in the Elementary Schools (3)

Covers concepts and techniques of the guidance process in the elementary school, behavioral and developmental problems, and releasing creative capacities of children.

60.533 Measurement and Evaluation in the Elementary School (3)

Emphasizes construction, administration, and interpretation of group tests of intelligence, achievement, aptitude, and personality in elementary schools.

60.534 Creativity for Teachers (3)

Helps teachers become more creative in their approaches to students and subject matter. Emphasis on understanding the creative process, recognizing the creative child, and development of the creative potential of student and teacher.

60.550 Problems in Guidance and Counseling (3)

Covers philosophy of guidance; history of the guidance movement; guidance needs of children and adolescents; methods of gathering data, nature of school records; interpretation

of test results and inventories; use of occupational information and data; interviewing and counseling techniques.

60.551 Techniques in Counseling (3)

Focuses on theories, principles, and practices of counseling; development and use of counseling materials such as test results, educational information, and other pertinent materials.

60.552 Organization and Supervision of Guidance (3)

Examines types of guidance organizations used in schools and their effectiveness in providing for good guidance.

60.561 Measurement and Evaluation in the Secondary Schools (3)

Examines construction, administration, and interpretation of group tests in intelligence, achievement, aptitude, and personality in secondary schools.

60.573 Introduction to Educational Administration (3)

Focuses on examination of the functions and tasks of educational administration. Issues include the evolving school setting; the meaning, development, and work of school administrators; educational systems analysis; school personnel administration; administrative and organizational behavior; and career ladders in educational administration.

60.576 School Law and Finance (3)

Considers limitations established by local, state, and federal laws relating to the interactions of school personnel. Special attention to recent changes resulting from judicial decisions. Covers fiscal control of education with emphasis on local budgetary problems.

60.577 Educational Research for Supervision (3)

Considers development of ability to read and interpret educational research and apply it to a school situation. Conclusions concerning curriculum content and teaching strategies designed for the improvement of the educational process are emphasized.

60.578 Group Processes in Supervision (3)

Emphasis on group processes, communication in the group, and organizational goals related to educational supervision. Focuses on knowledge of and practice in laboratory experiences in group processes and applicability to supervision. Experiences provide opportunities for experimenting with and evaluating leadership skills and promoting creativity and initiative.

60.579 Supervision of Curriculum and Instruction (3)

Examines objectives, techniques, and materials of staff supervision; defines the supervisory function directed toward the improvement of instruction with emphasis on the interrelationships between the humanistic aspects of education and democratic administrative behavior; studies roles of contemporary supervision with respect to educational quality assessment, interpersonal relations, and the catalytic role of the supervisor.

60.580 Practicum in Supervision of Curriculum and Instruction (3)

Field-based practicum experience that places the candidate for a Curriculum and Instruction N-12 Supervisory Certificate in a cooperative relationship with an individual in a school setting responsible for the overall planning, coordination, implementation, and evaluation of a curricular and instructional program. Competency-based experiences discussed in a weekly seminar. Evaluation of the candidate's performance based on achievement of specified competencies.

60.581 Independent Study in Education (1-6)

Provides an opportunity for public school teachers to pursue in-service projects in cooperation with a faculty adviser. The teacher submits a "learning contract" to an adviser designated by the department chairperson. Contract includes details of the academic goals, descriptions of the project in its relation to the goals and of a proposal for a final report, a reading list, and the proposed credit. Permission to register for the course granted upon approval of the contract. Evaluation based on the written report and an examination by a committee appointed by the adviser and/or department chairperson. Students may register at any suitable time; the duration of the experience is flexible.

60.583 Seminar in Education (1-6)

Provides the opportunity for a group of teachers engaged in a common in-service project to use the resources of the university and its faculty. A "learning contract" similar to that of 60.581 is submitted by the group as a basis for permission to register. Papers relate to aspects of the project and to the literature designated in the contract. Discussion and criticism in seminar meetings under the direction of a faculty member. Evaluation is based on the seminar reports and a final comprehensive written report by the student.

60.584 Curriculum and Instructional Theory, Design and Development (3)

Competency-based course consisting of elements that provide a base in relevant theory associated with the activity of curriculum

development. A review, critique, and evaluation of current theoretical positions and design methodology are an integral part of the course.

60.585 Curriculum and Instructional Evaluation (3)

Competency-based course consisting of elements providing a base for the student in current theory and practice in the evaluation of school curriculum and instruction. Reviews, critiques, and application of current thinking and practice in curriculum evaluation are an integral part of the course.

Elementary and Early Childhood Education (Code 62)

62.510 Methods and Materials in Early Childhood Education I (3)

For in-service teachers and graduate students. Study of selected areas in early childhood education. Individual or group study of subjects of interest or concern in teaching.

62.520 Methods and Materials in Early Childhood Education II (3)

See course description for 62.510

62.521 Elementary School Curriculum (3)

Studies problems related to development, experimentation, and improvement of curriculum practices in the elementary school.

62.522 Curriculum Trends in Early Childhood Education (3)

Studies the changing goals and the developing programs required to meet the needs of children who enter school with increased experiential background.

62.523 Practices in Teaching the Young Child (3)

Examination of current practices in teaching the young child with emphasis on the developmental aspects of childhood as they relate to the school program.

62.524 Knowledge and the Curriculum in the Elementary School (3)

Studies the place of knowledge in developing a curriculum. Emphasis on content influenced by innovative practices.

62.525 Current Practices in Elementary School Science (3)

Studies the problems resulting from the increased interest of children in science and the need for science instruction in the elementary grades; methods and materials for nurturing these interests and for implementing science instruction within the limits of the interests of children are presented and evaluated.

62.527 Social Studies in the Elementary School (3)

Examines contemporary trends and current research in the disciplines of the social sciences as a basis for development of a conceptual framework for a social studies program.

62.528 Language Arts in the Modern School (3)

Studies problems related to instruction in various aspects of the language arts; place of the language arts in the curriculum; current research and its practical application.

62.529 Literature for Children in the Elementary Grades (3)

Surveys ways children may encounter literature and methods that are effective in the encounter. Students become acquainted with children's books, work with children in a storytelling experience, discover ways other than through reading by which children may experience literature.

62.530 Awareness of Environmental Education Problems for the Elementary Grades (3)

Helps classroom teacher organize environmental education activities. Areas of content include problem-solving activities, material sources, the use of resources, curriculum building, development of an awareness of environmental problems, and possible solutions to them. Camping and a camp fee are required.

62.531 Environmental Education Awareness Activities and Materials for the Elementary School (1-3)

Opportunity for students to broaden their experiences in environmental education. Camping and a camp fee are required. *Prerequisite: 62.530*

62.533 Values Clarification in the Elementary School (3)

Primarily for elementary education students. Emphasizes the philosophy and composition of values clarification as it applies to the elementary school child. Practical and theoretical aspects stressed as well as techniques for helping children build a value system by which they can live. Emphasis on methods which aid the teacher in becoming aware of the emotional needs of children, humanizing of the education process, and improvement of working and learning relationships with others.

62.539 Current Topics in Elementary Education (3)

Investigates current thinking and research in aspects of elementary education.

62.581 Independent Study in Elementary Education (1-6)

Comparable to 60.581.

62.583 Seminar in Elementary Education (1-6)

Comparable to 60.583.

62.590 Current Research and Development in Early Childhood Education (3)

Examines recent literature and research in early childhood education, prenatal through age 8, characteristics of the learner, learning environment, learning materials, and innovative programs. Departmental paper and/or curriculum projects are initiated in this course.

62.591 Learning and Development of the Young Child (3)

Surveys child development and its relationship to the early school years; the development of the young child from prenatal through age eight.

62.592 Identification and Prescription of the Needs of Young Children (3)

Focuses on techniques of identifying the physical, emotional, social, and mental needs of young children and in developing appropriate prescriptive procedures.

62.593 Organization and Administration of Educational Programs for Young Children (3)

Studies the various programs in early childhood education with emphasis on the expansion and administration with regard to the selection of personnel, evaluative techniques, and curriculum procedures, school law, finance, and other appropriate subjects.

62.594 Practicum in Early Childhood Education (6)

Individually prescribed course of study and activity-based learning and practice teaching. Previous experience and academic achievement reviewed. *Practicum proposal required, and consent of program coordinator and department chairperson required.*

62.595 Individualized Instruction — Principles and Practices for the Classroom (3)

Analyzes practices, principles, and procedures for individualizing instruction. Experiences include procedures for adapting conventional instructional modes to individualized settings.

Finance (Code 96)**96.525 Financial Management Decisions (3)**

Studies business financial problems and the development of advanced financial

management practices as used in the decision-making role of the financial manager.

96.535 Financial Management (3)

In-depth study of management activities involved in the financial aspects of business enterprise. Theoretical knowledge gained through exposure to financial management literature is applied to problem situations through the use of case studies and simulation techniques. Emphasis on the development of perspective in the decision-making process with the acquisition of tools to facilitate effective decision making.

96.540 International Finance (3)

Studies the principles and practices relevant to understanding the nature of international finance, its problems and its institutions. Discussion centers on sources and instruments of international export and import financing, exchange rates, balance-of-payments, governmental regulations and policies, financial management, as well as accounting for international transactions. *Prerequisite: 96.313 Business Finance.*

96.550 Security Analysis and Portfolio Management (3)

Advanced treatment of aspects involved in developing a logical and systematic approach to analyzing and evaluating types of securities. Investment strategy and management of an investment portfolio. Theoretical aspects of security analysis and problems involved in analyzing and evaluating securities within the context of the type of industry issuing them.

96.599 Special Topics (3)

May address a variety of advanced topics in Law at the graduate level, and permits the instructor to focus on issues of particular importance and interest to the discipline. Students should contact the professor prior to enrollment.

Health and Physical Education**(Code 05)****05.500 Technology in Health/Fitness (3)**

Presents the basic principles of software and hardware usage for exercise science and human performance type of environments. Special emphasis on spreadsheet and data base modeling of performance tests and evaluations used in the area of fitness assessment. Utilizes several common environments as well as methods of software modification and hardware interfacing.

05.510 Physiological Assessments (3)

Studies skills necessary to make rational choices

between alternative practices in exercise science and adult health. Provides methods to validate performance improvements. Allows opportunity for students to be involved in proper hypothesis formation both for their own investigations but also for evaluation of current published works.

05.511 Concepts in Graded Exercise Testing (3)

Studies concepts, procedures, and techniques required in graded exercise testing (GXT) involving bicycle ergometer and treadmill test protocols.

05.575 Adult Exercise Programming (4)

Concentrates on adult physiological functions under stress and the adjustment and regulatory activities of the body during exercise; development of working knowledge of assessments, motor characteristics, and physical performance.

05.576 Adult Exercise Physiology (3)

Provides a continuation of basic and advanced exercise physiology as applied to adults and the elder population. Intended to develop student's knowledge of the physiology of human performance, the effects of ergogenic aids, aging, and the environment on physical performance.

05.577 Methods and Materials in Adult Physical Education (3)

Emphasizes the academic and technical knowledge necessary to conduct health and fitness programs in public and private agencies. Students are prepared to assume leadership and management positions within the health and fitness industries.

Health Sciences (Code 80)**80.500 Health Sciences Internship (3-6)**

Provides students in the multidisciplinary health sciences an opportunity to apply acquired knowledge in an on-site practicum experience under the supervision of an appropriately credentialed preceptor.

History (Code 42)**42.452 Soviet Russia (3)**

Presents a critical analysis of the political, social, economic, and cultural evolution of the Soviet Union and a study of Soviet foreign policy. *Not offered every semester. Prerequisite: 42.113.*

42.453 Problems of Contemporary Latin America (3)

Analyzes recent events or movements that may indicate recurrence of historical problems

or major developments of international significance in selected countries of Latin America. *Not offered every semester*

42.460/61 Topics in European History (3)

Investigates select topics in European history. Seminar-style course studies variety of problems in European history, in the medieval, early modern and modern periods. Discusses and analyzes secondary materials on the history, philosophy, politics, science and art of a chosen period. Research paper required. Topics vary from semester to semester. *Prerequisite: 42.112 or 42.133*

42.472 History of Labor in the United States (3)

Surveys the emergence and development of organized labor from the post-Civil War period to the present. A third of the course is devoted to an analysis of contemporary labor-management problems and labor's changing role in our increasingly technological society. *Prerequisite: 3 semester hours in history.*

Information Processing (Code 92)

92.550 Information Processing (3)

A comprehensive introduction and basic orientation to the use of information processing in the educational environment. Students required to investigate the impact of the computer and associated peripheral devices on the classroom. Emphasis on the effective use of available computer resources.

92.554 Management Information Systems (3)

Studies information analysis and systems design from the user's point of view. Students identify the basic concepts of systems point of view, organization as a system, information flows, and nature of management information systems. Data bases and data base management systems will be investigated from the manager's perspective.

92.599 Special Topics (3)

Examines current or advanced topics in the field of computer and information systems not normally examined in depth in other classes.

Instructional Technology (Code 57)

57.550 Instructional Design (3)

Examines the systems approach for the design, development, and evaluation of instruction and training materials. Students conduct a needs assessment and instructional analysis, write objectives, develop instructional strategies, and develop teacher's guide and

student materials. Specific emphasis on applying instructional design techniques to the design and development of instructional products in print form.

57.551 Advanced Instructional Design (3)

Serves as a sequel to Instructional Design (57.550) by providing additional information and practice concerning the design of effective instruction. Course goes beyond the introductory course by elaborating on the design of instructional strategies for specific learning outcomes, techniques for writing effective test items, and procedures for formative and summative evaluation. In addition, the course emphasizes learning theory, cognitive and behavioral approaches to instruction, a comparison of instructional design models, and research evidence that supports instructional design practices.

57.560 Interactive Graphics (3)

Provides a survey of the major aspects of modern interactive computer graphics from the user perspective. Included are overviews of the hardware, software, data structures, manipulation of graphical objects, the user interface, and a basic understanding of the fundamental implementation algorithms. Not a programming course, but rather for users of interactive graphical hardware and software.

57.570 Introduction to Interactive Technologies (3)

Examines the fundamental concepts of computer-based learning and information systems. Specific emphasis is placed on the design, development, and authoring of interactive videodisc courseware. Emerging technologies and their potential impact upon education and training are also studied.

57.572 Designing Multimedia with HyperCard (3)

Acquaints the student with the various user, authoring, and scripting levels of a hypermedia application program such as HyperCard or ToolBook. Basic constructs such as stacks/books, backgrounds, cards/pages, fields, and buttons are used in developing multimedia computer presentations. Applications are reviewed and developed with emphasis on good design and programming techniques.

57.573 Authoring Systems I (3)

Provides a careful, in-depth study of various PC-based authoring systems and authoring languages in an MS-DOS environment. Specific areas of emphasis include types of authoring software, generalized authoring options, specific techniques for planning and creating instruction using the authoring tools, and principles of effective design of computer-based instruction.

57.574 Authoring Systems II (3)

An in-depth study of various PC-based authoring systems and authoring languages in an MS-Windows environment. Specific areas of emphasis include the design and use of hypermedia applications, characteristics of various authoring tools, and criteria for choosing and authoring tool.

57.575 Managing Multimedia Projects (3)

Culminating experience in the Instructional Technology curriculum. Students are teamed together to apply concepts and skills learned in previous courses to simulate a hypothetical business environment. Student teams use a systems approach to design, develop, and evaluate a comprehensive interactive computer-based multimedia project.

57.590 Graduate Internship (3)

Allows students to put into practice the theory that they have learned in previous courses. Each internship must last at least 12 weeks and must be directly related to the general content of the master's program.

57.599 Master's Thesis (6)

Consists of an independent scholarly investigation in which the student designs, develops, implements, and evaluates a brief instructional module to address a specific audience. Under the direction of a faculty committee, the student identifies a performance problem in an audience of interest, and works with a subject matter expert to design and produce instruction on a particular topic. The instruction is later implemented with the target audience and evaluated for its effectiveness. The student then makes the necessary revisions based on the evaluation data.

Interdisciplinary Studies (Code 09)

09.401 History and Politics of the USSR (3)

Provides sufficient background in history and political science to enable students to better understand the USSR. Encompasses some of the major developments in the Soviet Union since 1917 employing lectures, films, slides, guest speakers, readings, and discussion.

09.427 Socialism: Theory and History (3)

Surveys socialist philosophies from Biblical times to the present concentrating on the theories of Marx, Engels, Lenin, and Mao and including a review of the major historical events surrounding socialist development.

09.580-589 Special Topics (1-3)

Provides an opportunity for graduate students from any graduate program to expand their

knowledge from a previously learned experience or to explore a new learning experience not offered on a regular basis. Each course carries from 1 to 3 semester hours. Prerequisites are determined by the instructor.

09.590 Graduate Internship (1-6)

Provides a work-study experience initially administered by an academic faculty member and a sponsoring employer. Provides the opportunity for an internship experience across disciplines at a graduate level.

09.599 Master's Thesis (3-6)

Law & Legal Elements (Code 98)

98.507 International Legal Environment of Business (3)

Introduction to public and private international law as applied to the increasingly globalized business environment. Cases include: Trade law; extraterritorial application of U.S. law; treaty law; U.S.-Japan relations; NAFTA and the GATT; European Union; multinational corporations; human rights, communications, and environmental regulation in the international system.

98.599 Special Topics (3)

Addresses a variety of topics in law and legal elements and allows the instructor to focus on appropriate current topics in the accounting profession. Students should contact the instructor prior to enrollment.

Management (Code 93)

93.511 Statistical Analysis (3)

Covers statistical principles and procedures basic to research in business and interpretation of data.

93.512 Managerial Economics (3)

Covers economic analysis of the firm and its environment; determination of prices, output, and employment.

93.540 Small Business Institute Seminar (3)

Provides graduate credit for students participating in the College of Business' Small Business Institute Program as well as experience in applying theoretical concepts to practical decision-making business problems.

93.556 International Management (3)

Focuses on dynamic changes in international business environment and increased foreign competition that challenge company managers. Addresses international issues and understanding of their impact on market, products, and services. Develops understanding of international business

environment and issues that could enhance an enterprise's survival and success.

93.558 Social Responsibility and Business Ethics (3)

Relates the American business system and individual business firms to the social, political, technological and economic environments. It examines the powers and responsibilities of the business system as a major institution within society as well as individual business firms in the same society. The course addresses social responsiveness in the general context of managerial ethics.

93.560 Operations Management (3)

Analyzes of manufacturing and service systems and application of decision making of operational policy problems.

93.562 Organizational Theory (3)

Applies comparative examination of major approaches to the study of organizations theories and research findings to practical situations. Topics include systems of power and influence, organization structure, organizational conflict and cooperation, individual motivation, group process, behavioral science research and its implications on management.

93.563 Operations Research (3)

Covers construction and use of quantitative models in business decision making.

93.566 Organization Behavior (3)

Focuses on internal organizational issues with recognition given to personal and external organizational background factors. Deals with human aspects of organization, spotlighting the group and the individual. Includes the findings and conceptual models of those who have conducted empirical behavioral research and the behaviors of class members. Includes concepts of roles, norms, cohesive and divisive processes. Explores social and status aspects of self-concept, personal perception, goals, feelings, ego, responsibility, decisions, conditioning, and personal functioning.

93.581 Business Policies (3)

Examines complex industrial situations to determine best strategies to insure a firm's long-run survival and growth in competitive markets. Emphasizes problem-solving skills, implementation of optimal decisions, nature of strategic analysis including selected cases involving production, pricing, capital investments and their interaction with other factors.

93.583 Human Resources Development (3)

Focuses on current research and theory related to management and development of human

resources in organizational settings. Emphasis on basic principles of behavior, motivation, training and development, leadership, and performance in organizations.

93.599 Special Topics (3)

This course may address a variety of advanced topics in Management at the graduate level, and permits the instructor to focus on issues of particular importance and interest to the discipline. Students should contact the professor prior to enrollment.

Marine Science (Code 55)

55.431 Ecology of Marine Plankton (3)

Studies phytoplankton and zooplankton in marine and brackish environments. Qualitative and quantitative comparisons made between the plankton populations of various types of habitats in relation to primary and secondary productivity.

55.500 Problems in Marine Science (3)

Graduate students may pursue one of the following options:

Option A - Enroll in 200, 300, or 400 level course offered at the Marine Science Center in which they desire advanced work and complete, in addition to the regular course requirements, an approved project in the area under the direction of the instructor.

Written permission from the instructor is required.

OR —

Option B - Enroll in an Independent Research Project. To be admitted, a student must submit a research proposal to the academic committee of the Marine Science Consortium.

The proposal must include the scope and duration of the proposed research, equipment and facilities required, and a recommendation and approval from the student's academic adviser.

Requires written permission for graduate credit acceptability from the chairperson of the graduate committee of the Department of Biological and Allied Health Sciences before registering.

Copies of this approval and the instructor's permission must be forwarded to the academic director of the Marine Science Center before the student arrives on station to take the course.

55.540 Environmental Science Education (3)

Field-oriented approach to environmental education with special emphasis upon coastal zones. Students relate their own disciplines to education for quality environments. Consideration will be given to sources, facilities, methods, techniques, and concepts used in environmental education.

55.541 Biology of Mollusca (3)

The Mollusca is the second largest group of animals and perhaps the most diverse in terms of morphological, ecological and behavioral variations. This course offers an evolutionary, functional and ecologic approach to studying this important group of organisms.

55.570 Research Cruise — Biology (3)

A three-week session involving planning and preparations for an oceanographic research cruise of approximately eight days, actual execution of the cruise plan on board an ocean research vessel. Introduces data-processing techniques and instrumentation used by biological oceanographers. *Prerequisite: 55.241 or its equivalent, or permission of the instructor.*

55.593 Behavioral Ecology (3)

Designed to present animal behavior within an ecological and evolutionary context. Presents mathematical and theoretical framework of behavioral ecology. An in-depth exploration of the ways in which the behavior of animals is influenced by the environment, especially with regard to resource distribution.

Marketing (Code 97)

97.551 Marketing Management (3)

Applies managerial process of analysis, organization, planning and control to marketing activities marketing concepts analysis of marketing opportunities, growth and competitive strategy, marketing information systems, buyer behavior, and product development.

97.552 Marketing Research (3)

Advanced techniques of the scientific marketing research procedure (problem definition, research design, data collection, analysis and interpretation). An applied orientation for the users of marketing research, reflecting the current trends in the integration of microcomputers and mainframes, and international marketing.

97.599 Special Topics (3)

This course addresses a variety of topics in marketing and allows the instructor to focus on appropriate current topics in the accounting profession. Students should contact the instructor prior to enrollment.

Mass Communications (Code 27)

27.511 Television Production and Design (3)

Focuses on the practical aspects of planning and producing video tapes for specific instructional purposes. Covers pre-production planning, production activities, and post-production editing.

Mathematics (Code 53)

53.411 Introduction to Group Theory (3)

Continued and advanced study of theorems and applications of group theory begun in abstract algebra. *Prerequisite: 53.310.*

53.421 Advanced Calculus (3)

Presents a rigorous treatment of the concepts of limit, continuity, derivative, and integral for functions of a single real variable. *Prerequisite: 53.226, consent of instructor.*

53.422 Complex Variables (3)

Presents a rigorous treatment of the complex numbers and theory of functions of a complex variable, limits, continuity, analytic functions, Cauchy-Riemann equations, contour integrals, conformal mappings, and applications. *Prerequisites: 53.226, consent of instructor.*

53.451 Introduction to Topology (3)

Introduces fundamentals of general topology; elementary set theory, topological spaces, mappings, connectedness, compactness, completeness, product and metric spaces; nets and convergence.

Prerequisites: 53.226, consent of instructor.

53.471 Numerical Analysis (3)

Provides a computer-oriented analysis of algorithms of numerical analysis. Includes the topics of non-linear equations, interpolation and approximation, differentiation and integration, matrices and differential equations. *Prerequisites: 53.322 and 53.373.*

53.491 Special Topics in Mathematics (3)

Presents an area of mathematics not available as a regular course offering. *Prerequisite: Consent of instructor.*

53.576 Computer Graphics for Instructional Applications (3)

Sequel to 53.375 where techniques for creating color, graphics, and sound are examined and applied to the development of instructional computing programs.

53.592 Special Topics (3)

Nursing (Code 82)

82.500 Applied Statistics for Health Professionals (3)

Applies principles and methods of statistical analysis of data in the health professions. The course emphasizes statistical concepts as a set of principles and a way of thinking for health professionals. *Prerequisites: high school algebra, basic statistics course or permission of the instructor.*

82.501 Role Theory and Development in Nursing Practice (3)

Examines theoretical formulations related to roles and role development and their applicability to the functional role development of the clinical nurse specialist. Students use concepts, principles and strategies inherent in a variety of theories (e.g., systems, change and role) to serve as a framework for the development and enactment of the subroles of practitioner, educator, researcher, leader/manager and consultant. Leadership principles are employed as students identify an actual or potential issue or problem related to a component of the clinical nurse specialist role and design a proposal for planned change.

82.502 Conceptual Models in Nursing (3)

Explores theory building and levels of theory, the relationship of models to theories, the elements of a model, and major conceptual models in nursing practice. Students conduct an in depth analysis of one specific conceptual model in nursing, as well as design/select a model for advanced nursing practice in their area of clinical specialization,

82.503 Nursing Research I (3)

Prepares students to critique, use and extend nursing research findings to improve the quality of health care and health care delivery. Principles and strategies inherent in scientific inquiry, critical evaluation and the research process are applied throughout the course. *Prerequisites: undergraduate courses in research design and statistics. 82.500, Applied Statistics for Health Professionals, may be taken prior to or concurrent with this course.*

82.504 Advanced Physiology for Nursing Practice (3)

Presents selected aspects of genetic, biochemistry, physiology, and pharmacology as applied to advanced nursing practice. Functionally relates embryonic, histologic, and gross anatomical features of certain organ systems to biochemical and physiological mechanisms essential for the maintenance of a stable internal environment. Considers some deviations from normal metabolism, structure, and function. *Prerequisites: Undergraduate anatomy and physiology, biochemistry, pharmacology, one year of nursing clinical practice.*

82.505 Physical Assessment for Advanced Nursing Practice (3)

Focuses on knowledge and perspective of physical assessment of individuals across the life span to develop a systematic approach to physical assessment with synthesis of cognitive knowledge and psychomotor skills. Emphasizes the wellness component of physical assessment with reference to major health deviations.

82.506 Epidemiology: Concepts and Principles for Contemporary Nursing Practice (3)

Focuses on the epidemiological model as a basis for decision making and health promotion in contemporary clinical and community health nursing practice. Presents concepts, principles, and methods of the epidemiologic orientation as the framework for assessing the well-being populations and designing strategic nursing interventions based on levels of prevention. Students apply basic epidemiologic research designs in the investigation, analysis, and proposed solutions to observed patterns of health states in contemporary populations. *Prerequisites:* undergraduate research, microbiology and community health nursing.

82.511 Community Health Nursing I (6)

Focuses on the role development of the clinical nurse specialist in community health nursing. Students apply advanced knowledge, skills and critical thinking in the competent use of the nursing process with populations and the community as a whole. Evaluation and refinement of a model for advanced practice provide a framework for the student's development of the multifaceted roles of practitioner, educator, researcher, consultant and leader/manager. Leadership principles and strategies are applied as students assess and analyze the health status and determinants of health of populations and the total community. Students collaborate and coordinate with other community health nurses, a variety of providers, and clients in a diversity of settings to plan and develop innovative programs designed to meet identified health needs of risk populations in the community. Weekly seminars assist and enable the students to participate in the analysis of current community health issues, develop research skills, and understand the development and operationalization of health policies within community health programs. *Prerequisites:* 82.500, 82.501, 82.502, 82.503, 82.505, 82.506, candidacy for M.S.N.

82.512 Adult Health and Illness Nursing I (6)

Focuses on the role development of the clinical nurse specialist in adult health and illness. Students apply advanced knowledge, skills and critical thinking in the competent use of nursing process, therapeutic interventions, and technology to administer nursing services to a specific adult population to facilitate optimal wellness and to impact on the delivery of adult health care. Evaluation and refinement of a model for advanced practice provide a framework for holistic care of adult clients and one's development of the multifaceted roles as practitioner, educator, consultant and leader/manager. Leadership principles and strategies

are employed as students collaborate with adult clients, support systems and variety of providers in diverse settings to promote, restore and maintain adult health. Through social, ethical and political actions, client advocacy and change process are encouraged to affect the quality of adult health care. Weekly seminar affords students' participation in analyzing current adult health care problems, trends/issues and in evaluating and formulating strategies for health care reform. Research skills are enhanced through seminar presentations, clinical practicum and course assignments. *Prerequisites:* 82.501, 82.502, 82.503, 82.504, and 82.505, candidacy for M.S.N.

82.513 Management and Organizational Behavior in Advanced Nursing Practice (3)

Explores the concepts of organizational style and the theories of management behavior related to the role of the clinical nurse specialist in advanced practice. Focuses on leadership theories, strategies for maturation and change, concepts of power and influence, and organizational decision making. *Prerequisite:* Consent of the instructor.

82.514 Independent Study (3)

Student works with a faculty preceptor in conducting an individualized study related to a particular area of clinical interest.

82.531 Community Health Nursing II (6)

Builds upon Practicum I and concentrates on advanced professional nursing. There is an emphasis on the students' increasing independence and self directed learning. Through the assimilation of additional theory, students continue to apply critical thinking, communication skills, therapeutic interventions and values as they implement and evaluate community health nursing programs and interventions for selected high risk populations. They function independently and collaboratively with others who influence the health care environment to improve the health of the community. Students continue to engage in social, ethical and political actions which initiate and effect change at the community level. Interventions that assist in the development of public policy based on the assessed needs of populations are stressed. Weekly seminars continue to focus on the analysis of current community health issues, leadership in the development of health policy and research in the advanced practice in community health nursing. *Prerequisite:* 82.511.

82.532 Adult Health and Illness Nursing II (6)

Concentrates on advanced professional nursing

practice as a clinical nurse specialist within a specialized area of adult health and illness through independent, self-directed learning. Through self-directed learning activities, the student is facilitated to assimilate additional theory and research in advancing the students' knowledge, critical thinking, communication skills, therapeutic interventions/technology and values in advanced clinical nursing practice for adult clients. Students enhance their expertise in the multifaceted roles of the clinical nurse specialist in adult health and illness by assuming leadership/management positions in a health care setting and by functioning both independently and collaboratively with clients, support systems, other providers and community in improving the quality of adult health care. Social, ethical and political actions are employed in order to initiate and affect change regarding the development of health care policy and its effect on health care. Weekly student-conducted seminars focus on the analysis of current concepts, practices, trends, issues, health policies and research in their role enactment as clinical nurse specialists in the advanced practice of adult health and illness. *Prerequisite:* 82.512.

82.533 Management and Organizational Behavior in Health Care Delivery System (3)

Seminar format that explores model building and the future directions of organizational structures for advanced nursing practice. Organizational theory provides the framework for organizational characteristics and identifying the organizational strategies and structures with greatest potential for promoting effective performance and organizational growth. Focuses on organizational environments and planned change in the health care delivery system. Course may be taught in another country to provide international aspects. *Prerequisite:* Consent of the instructor.

82.550 Nursing Research II (3)

Serves as the culminating experience in the program. Students synthesize knowledge drawn from core and clinical course work to expand on the research prospectus developed in Nursing Research I. In developing a comprehensive proposal, students conduct an extensive review and critique of relevant literature, formulate a conceptual or theoretical framework and select an appropriate research design and methodology. The course is presented in a seminar format with open forum defense of the proposal serving as a comprehensive examination. *Prerequisite:* All course work in the nursing major

82.590 Thesis (6)

Upon successful completion of 82.550,

students who choose to carry out their research study may enroll in thesis as an elective option.
Prerequisite: 82.550

Office Systems (Code 94)

94.500 Office Systems and Information (3)

An overview of office systems — people, technology, and procedures within organizational and environmental contexts. Provides an understanding of the evolving role of the office as a key information systems center.

94.510 Office Systems Applications (3)

Discusses applications of office automation technologies to enhance productivity of office employees from support personnel to managers. Hands-on experience includes comparative and selective techniques for hardware and software, as well as an evaluation of appropriate training materials for support personnel.

94.520 Administrative Communications (3)

Provides application of communication skills for those professionals who work in environments with automated information and communication systems. Topics include: oral and written reports, systems-related documents (reports, proposals, procedures), research methods, and information technology.

94.530 Telecommunications (3)

Introduction to telecommunications in the business environment. Topics include: telephony, data codes, protocols, network architectures, local area networks, communications media, hardware, and software. Management issues and practical applications are an integral part of the course. Emphasizes the application of telecommunications to facilitate information interchange in whatever form the information takes: voice, data, text, and image.

94.540 Training and Development (3)

Applies theories of learning and instructional procedures to education and training of employees in office systems. Topics include: instructional design, strategies, technology, and implementation, evaluation, and management of training with the organizational structure.

94.550 Integrated Office Systems (3)

Capstone course of office systems curriculum. Includes a synthesis and an application of concepts related to current office systems topics. Students should enroll in this course during the last semester of the degree program.
Prerequisite: 94.500, 94.540 or consent of the instructor.

Physics (Code 54)

54.21 Solid State Physics (3)

Examines physical properties of matter in the solid state. Reviews basic quantum concepts, crystal structure, electrons in metals, electrical conductivity, semiconductors, band theory, and the p-n junction. Studies dielectric and magnetic properties of matter. Three hours of class per week. *Prerequisite: 54.310, 54.314; Mathematics 53.225.*

54.22 Thermodynamics (3)

Presents concepts and principles of classical thermodynamics, thermodynamics of simple systems, introduction to kinetic theory, and statistical thermodynamics. Three hours of class per week. *Prerequisite: 54.212, or 54.112 with consent of instructor; Mathematics 53.225.*

54.450 Introduction to Quantum Mechanics (3)

Examines the development and interpretation of Schrodinger's wave mechanics, its mathematical formalism, and the results and predictions of this quantum theory as applied to one-dimensional systems, the hydrogen atom, and multi-electron atoms. Three hours class per week. *Prerequisite: 54.310; Mathematics 53.225.*

Political Science (Code 44)

44.405 The Development of Political Thought (3)

A serious in-depth look at higher-level questions in political philosophy

44.409 American Political Thought (3)

Analyzes the relationship of American political thought to contemporary political science by using traditional materials in an historical, chronological way but reworking them to show their relation and relevance to actions and institutions. Covers main ideas of the leading political thinkers in America from the Colonial period to the present.

44.437 Public Administration Applications (3)

Puts into practice the theory of public administration by using simulations and cases. Offered spring semester only.

44.438 Public Personnel Administration (3)

Examines public service as a career, the personnel needs of national, state, and local governments; civil service law, personnel systems; and current problems in the public service.

44.440 The President and Congress (3)

Reviews presidential and congressional politics, public policy-making roles, executive-legislative relationships, constitutional issues. Explores the constitutional limitations, citizen expectations and myths surrounding these institutions.

44.446 Constitutional Law I (3)

Analyzes the evolution, structure, and function of the Supreme Court, concentrating on a case study approach of the court's interpretations of the powers of the president, Congress, and federal-state relationships. Offered fall semester only.

44.447 Constitutional Law II (3)

Studies the decisions of the Supreme Court as they are related to the individual and the government, concentrating on nationalization of the Bill of Rights, rights of persons accused of crimes, equal protection, and voting rights. Offered spring semester only.

44.448 Judicial Process (3)

Studies policy-making by the federal courts, primarily the Supreme Court. Analyzes nature of the policy-making function as well as the impact of policy-making on American society.

44.452 State and Local Government and Politics (3)

Presents a description and analysis of state and local legislatures, executives, and judiciaries; the myths and realities of state and local politics; intergovernmental relations; current policies and problems. Offered spring semester only.

44.458 U.S. Foreign Policy (3)

Analyzes substance, methods, and purposes of U.S. foreign policy including the determinants of policy, policy-making machinery, and implementation matters.

44.464 Government and Politics of Ireland (3)

Surveys historic, social, cultural, and religious developments in Ireland with concentration on a study of the government and politics of Northern Ireland and the Irish Republic. Examines contemporary literature, drama, music, and art.

44.487 International Law and Organizations (3)

Examines the nature of international law and politics and surveys basic issues in contemporary international law. The course also examines the process of international organizations and selected issues.

44.490 Independent Study in Political Science (3)

Provides for individualized reading, research,

and reporting under conditions of minimal supervision. Projects must have departmental approval and be under way by the end of the first week of a session.

44.492 Seminar in Government and Politics (3)

Examines selected government and politics in an attempt to review and unify theories and methods of political science. Emphasizes individual research projects.

Professional Studies (Code 79)

79.591 Research in Education (3)

Studies methods and techniques used in educational research; development and interpretation of statistical data and application to professional problems.

79.593 Studies in Human Diversity (3)

Designed for teachers seeking an advanced degree in education. Broadly based and field-based oriented. Provides additional opportunities to integrate new learning and classroom experiences in these areas: human development, language and culture, learning modes and styles, multicultural and exceptional studies, and an understanding of the social and cultural milieu.

79.599 Thesis (6)

Student demonstrates ability to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern. The problem area selected for the research project must be related to the curriculum that the student is pursuing.

Psychology (Code 48)

48.406 Psychology Seminar (3)

Provides for an advanced consideration of significant topics in psychology. Requires reports and discussions of current research and may be repeated with change in topic. *Prerequisite: 48.101 and consent of the instructor.*

48.436 Theories of Personality (3)

Provides a critical study of theories explaining development, structure, and organization of personality. Considers personality from psychoanalytic, social, individual, self, and learning points of view. *Prerequisite: 48.101, 48.160, 48.281, or consent of instructor. Offered fall semester only.*

48.451 Laboratory Training in Group Processes (3)

Offers on-going experience on topics including norm-setting, leadership, problem solving, role playing cooperation/competition, and decision

making. *Class size limited to 20 students. Prerequisite: 48.101 and consent of the instructor. Offered spring semester only.*

48.453 Organizational Psychology (3)

Describes the application of psychological theory and research to the study of industrial, business, profit, and nonprofit service, military, and governmental organizations. Emphasizes the interaction of individual perceptions, group dynamics, and organizational climate and strategies to maximize the satisfaction and effectiveness of each component within and between complex organizations. *Prerequisite: 48.101, 48.253, and consent of instructor. Offered spring semester only.*

48.464 Advanced Experimental Design (3)

Presents an advanced consideration of the planning, conduct, and evaluation of research in the behavioral and biological sciences, employing parametric and non parametric statistics. Emphasizes inferential statistics, design, analysis, interpretation, and computer utilization. *Prerequisites: 48.101, 48.160, 48.281, 48.282, or consent of the instructor.*

48.466 Independent Study in Psychology (3)

Studies a topic via either review and research of technical psychological literature or empirical manipulation of variables in the field or laboratory under supervision of a psychology faculty member. Requires written report on results of study. *Prerequisites: Consent of the instructor and departmental approval.*

48.497 Psychology Practicum (1-15)

Provides application of psychological knowledge through study, observation, and practice in a community. May be repeated for a total of 15 semester hours. *Prerequisites: Consent of the instructor.*

48.576 Theories of Human Learning (3)

Studies the historical and contemporary learning systems and models which yield principles for practical application.

Reading (Code 63)

63.540 Introduction to the Teaching of Reading (3)

Focuses on recent research and trends and provides an historical perspective of reading instruction; designed to develop a knowledge base and instructional competence with different programs and approaches to reading instruction.

63.541 Diagnosis and Prescription in Reading (3)

Emphasizes the administration and

interpretation of standardized tests, curriculum-based assessment, and informal diagnostic techniques; analysis of extreme reading disabilities; application of practical remediation techniques; discussion of how to adapt instructional techniques to test results, a clinical environment, and a classroom.

63.543 Clinical Practicum I (3)

Clinical experience in diagnosing and remediating the reading difficulties of school-age students who have reading and/or learning difficulties; focuses on self-help strategies related to decoding, comprehension, oral reading, and study skills; emphasizes the application of clinical strategies to curriculum materials and homework; written summary reports required. *Prerequisites: 63.540, 63.541, 63.548 plus consent of clinic director.*

63.544 Clinical Practicum II (3)

Clinical experience in applying a remedial setting; written summary reports required; when combined with the experiences acquired in 63.543, Clinical Practicum I, provides experience with different age/grade levels and practical application of various theories of reading instruction. *Prerequisites: 63.540, 63.541, 63.543, 63.548 and consent of clinic director.*

63.545 Organization and Administration of Reading Programs (K-12) (3)

For classroom teachers, reading specialists, and resource room specialists who are involved with a school district's reading program; emphasizes a working knowledge of certification requirements, job descriptions, guidelines for programs funded through federal or state agencies, resources for exemplary reading programs, program evaluation, and parent involvement.

63.546 Reading in the Content Areas (3)

Presents theory and related teaching strategies for content area instruction in grades 4-12; topics include the reading process, textbook evaluations, and strategies for improving comprehension, vocabulary, and study skills.

63.547 Seminar in Reading (3)

Advanced independent work in the study of recent research in the field of reading as it is applied to curriculum, instructional materials, and procedures of teaching reading.

63.548 Reading Instruction for the At-Risk Learner (3)

Emphasizes methodology related to improving the reading skills of at-risk learners; provides an overview of how Pennsylvania laws and at-risk learners affect classroom instruction; topics include historical and current theories and research on at-risk learners, diagnostic tests,

learning modalities, exemplary programs, and adapting instruction.

63.549 Teaching Reading to the Hearing Impaired/Language Handicapped Child (3)

Principles, practices, methods, and materials of teaching reading to hearing impaired/language handicapped individuals; awareness of research and clinic practices which can be applied to classroom settings.

63.550 Literature, Literacy and Culture (3)

Examines psychological aspects of literacy development and implications for teaching reading, writing, listening, and speaking across the curriculum; addresses the instructional needs of diverse learners.

Secondary Education (Code 65)

65.530 Curriculum Development and Instructional Strategies in the Middle and Junior High Schools (3)

Inquires into the role of early secondary education by analyzing historical trends, curricular patterns, instructional designs, and personnel structure of this organization unit. Emphasis on teacher behavior, student values and attitudes, and instructional designs peculiar to junior high, middle, and intermediate schools.

65.560 Development of the Secondary School Curriculum (3)

Problems related to development, experimentation, and improvement of curriculum practices in the secondary school.

65.571 Evaluating Teaching in Middle and Secondary Schools (3)

Improvement of instruction through self analysis. Micro-teaching techniques, planning dimensions, self-appraisal techniques. Designed for teachers with special reference to the work of cooperating teachers.

65.581 Independent Study in Secondary Education (1-6)

See course description for 60.581.

65.583 Seminar in Secondary Education (1-6)

See course description for 60.583.

Sociology (Code 45)

45.441 Social Indicators (3)

Reinforces and extends earlier learning in research techniques and methods by focusing on systematic step-by-step understanding, analysis, and preparation of social indicators at the federal, state, and local levels of social

policy planning and analysis. Promotes understanding of social indicators and the use of these indicators within all levels of society.

45.443 Sociology of Deviant Behavior (3)

Evaluates the presence and function of deviance in society. Includes mental illness and various types of crime and stigmatized behavior. Examines how deviance is handled therapeutically and legally through institutionalization and treatment. Attempts to provide a broad theoretical perspective as well as concrete examples of deviance in any society. Examines current methods of rehabilitation and punishment.

45.450 Social Work Processes II (3)

Utilizes problem-solving interventions in small groups integrating social work knowledge, skills, and values. *Offered fall semester only.*

45.451 Family Counseling (3)

Surveys the major theoretical models for family assessment and intervention with primary emphasis on ecological systems. Covers knowledge of rudimentary assessment and intervention skills for problem solving with families.

45.453 Social Welfare Policy (3)

Frameworks for analyzing social and economic policies presented with special focus on legislative, judicial, and administrative policies. *Offered spring semester only.*

45.465 Computer Applications in the Social Sciences (3)

An introduction to computer use for the social sciences (through use of SPSS). Emphasizes translating questions into data analysis and interpretation of statistical results. *Prerequisites: 45.260 or similar statistics course. Offered spring semester only.*

45.467 Population Problems (3)

Studies human population, its major theories, distributions composition, changes, and future developments of population, and impacts of population problems on society as influenced by vital processes.

45.468 Social Service Planning (3)

Provides an advanced consideration of the social context of the development of social policy, planning, and implementation of social and/or human services at federal, state, and local levels of organization. A critical analysis of the social effects of social policy, planning, and services on people in a service-oriented, post-industrial society.

45.474 Contemporary Environmental Issues (3)

Examines some major human problems that

lead to environmental deterioration, particularly water, air, and noise pollution, energy and other resource depletion, and increasing population density.

45.490 Sociology of Aging (3)

Studies aging, its major theoretical themes, patterns of living, socio-psychological and cultural consequences of aging. Examines the contemporary issues, problems, and programs of the aging.

45.500 Sociology of Mass Communication (3)

In-depth discussion of cognitive and behavioral effects of mass media, especially television, on audiences, the social structure of communications industry, particularly its influence on media content and the political use of mass media. Students critique the latest research articles in the field.

45.511 Social Institutions (3)

Sociological examination of major institutions in the United States cross-culturally compared with those in other societies. Specific institutions selected depending on the interest of students and faculty.

45.513 Adolescents in American Society (3)

Studies the role of adolescents in contemporary U.S. society with special emphasis on the adolescent's social interactions in groups and institutions.

45.523 The Contemporary American Community (3)

An advanced examination of the social dynamics of community life, its institutions, organizations, and people within the context of the development of post-industrial society.

45.525 Current Social Issues (3)

Analyzes current social issues and solutions offered to solve them. Explores issues and solutions within the broad framework of the social sciences and specific framework of sociological and anthropological data.

45.578 Sociology of Work (3)

Focuses on structure and organization of industrial and post-industrial societies and the relationship between work organizations within communities and society. Presents a sociological examination of work and the milieu of the worker. Course focuses on formal and informal work organizations, worker job satisfaction, and dissatisfaction.

Special Education (Code 70)**70.501 Administration and Supervision of Education for Exceptional Individuals (3)**

Application of the fundamental principles of school administration and supervision to the areas of exceptionality and to problems unique to each. School law, teacher recruitment, in-service education, organization and integration of special education and ancillary services, evaluation of special provisions, and finance as these bear on special education.

70.502 Mental Retardation (3)

Intensive review of research pertaining to etiology of mental retardation, classification systems, and diagnosis. Includes study of brain injury, familial retardation, research on learning characteristics, and evaluation of psychological tests. Criteria distinguishing mental retardation from other problems.

70.505 Seminar in Learning Disabilities (3)

Facilitates an in-depth study of the behavioral characteristics and cognitive development of children with specific learning disabilities. Intended for students seeking a master's degree with concentrated emphasis in learning disabilities. Enrollment limited to students with the necessary prerequisites and the approval of the instructor.

70.506 Introduction to Early Intervention (3)

Presents an overview of the field of early intervention, including historical perspectives, philosophies of early intervention, influences of disabilities on the development of young children and early intervention models.

70.516 Psychology of Exceptional Individuals (3)

Symptomatology personality formation and developmental and therapeutic consideration for the exceptional individual.

70.522 Assessment and Remediation of Mathematics for Special Needs Students (3)

Provides an overview of the concepts of hierarchy of skills, computation, and application of addition, subtraction, multiplication, division, fractions, decimals, time, and measurement. Students will administer and interpret achievement, diagnostic and curriculum-based mathematics assessment. Emphasis on development of remedial math programs, adaptations of math curriculum for special needs students and design of a functional mathematics curriculum for moderately disabled students. Students evaluate, design, and implement a math program for elementary, middle school and/or

secondary students. Math education software, manipulatives, games, and materials will be evaluated and utilized.

70.526 Transition Services for Individuals with Special Needs (3)

Presents an overview of methodology and service structures that facilitate the successful transition from school to adult living for individuals with special needs. Examination of individual vocational assessment, development of functional vocational curriculum, and the instruction of vocational competencies will be content focus. Issues related to the transition planning process are presented.

70.533 Language Arts for Students with Special Needs (3)

Will provide preservice teachers with a comprehensive overview of skills, assessment, and strategies for teaching listening, speaking, reading, and written expression. A holistic philosophy for teaching language arts will be stressed. Students will prepare a portfolio of resources and "best practices" for teaching language arts to students with special needs.

70.534 Learning Disabilities (3)

Study of characteristics and symptoms of specific learning disorders. Introduction to diagnostic and educational procedures used with learning disorders. Emphasis on perceptual and conceptual factors in the development of language skills. For individuals who have not had a course in learning disabilities.

70.544 Diagnostic and Remedial Techniques (3)

Diagnostic and remedial techniques and instruments used with children in special education programs. Critical evaluation of applicability of each to the child in relation to causes and conditions of exceptionality. Development of skills in interpreting and writing case histories and reports in selection and application of remedial techniques and evaluation of progress. *Prerequisite: Course in tests and measurements or its equivalent.*

70.547 - Technology and Exceptional Individuals (3)

Provides an introduction to technology as it is being applied to meet the needs of exceptional individuals. Both simple and high technology solutions are explored as they relate to meeting the needs of individuals with mental, physical, sensory and communication disabilities. Topics include instructional tools and adaptations, environmental interfaces, prosthetics, as well as data and productivity tools.

70.550 Teaching Methods for Individuals with Mild and Moderate Disabilities, Elementary (3)

Presents principles for effective teaching techniques and current best practices applicable to elementary students with diverse learning needs and abilities. Provides awareness of role expectations of the special education teacher, practice collaborative problem solving and selecting and adapting instructional materials for students with special needs.

70.551 Teaching Methods for Individuals with Mild and Moderate Disabilities, Secondary (3)

Will familiarize students with a variety of instructional techniques used to enhance the learning process of individuals with disabilities at the secondary level. Information pertaining to current issues in secondary special education and their impact on service delivery will also be discussed.

70.552 Projects in Special Education (3)

Designed to further a student's own interest and competency in an area of special education for the exceptional child. Library research or individual projects involving service to the exceptional person may be agreed upon and conducted under supervision of a staff member.

70.556 The Mentally Gifted Individuals (3)

Principles and practices that are modifying school programs to conserve and develop to the optimum degree the capabilities of the more able individuals. Covers teaching techniques and devices used effectively in both the elementary and the secondary school.

70.559 Seminar in Education of Exceptional Individuals (3)

Research oriented and devoted to problems in the education of exceptional individuals. The problems may be theoretical and practical. Consideration given to problems of interest to the student.

70.562 Issues of Individuals with Physical Disabilities (3)

Provides information and experience with educationally relevant motor disabilities. Covers normal motor development; formal and informal assessment of motor skills and problems; developmental and corrective preschool and elementary school programs; conditions resulting in severe motor disabilities, self-care, academic, and psycho-social aspects of physical disability; prevocational, and vocational adjustment of the physically handicapped; and current issues related to research and litigation.

70.565 Reading and Interpreting Research in Special Education (3)

Aids the student in reading, understanding, and evaluating the results of statistical and behavioral research carried out by others. Covers a working knowledge of basic statistical terms, an introduction to the type of research questions that can be answered by various statistical procedures, a knowledge of the basic steps of hypothesis testing, analysis and comparison of excellent and poor research designs, and the development of an ability to detect misuse of statistics.

70.570 Foundations of Behavior Disorders (3)

Covers characteristics of children with behavior disorders, approaches to remediation, general principles of classroom management, simulated problem solving, ideal academic models for children with behavior disorders, research findings, and sources of information.

70.572 Seminar on Behavior Disorders (3)

Seminar group composed of those who wish to read and discuss current material related to the area of behavior disorders. Group reads new research and discusses implications for applications, as well as future directions, moral issues, and more advanced systems of management and instruction.

70.575 Seminar in Current Issues in Special Education (3)

Will provide students with a forum to review and analyze current trends and issues in special education. The content of the course will change as current trends and issues emerge.

70.591 Practicum in Special Education (3)

Graduate experience for students in a setting with exceptional persons. Student spends a minimum of eight hours per week in practicum and meets regularly in a seminar fashion with the university instructors.

70.595 Internship (3-6)

Internship in special education. Supervision to take place in schools or educational situations under supervision of the local supervisor and graduate faculty.

70.596, 597, 598 Special Workshop I (1-6)

Temporary special workshop seminars designed to focus on contemporary trends, topics, and problems in the field of special education. Lecturers, resource speakers, team teaching, field experience and practicum, new media, and related techniques. Usually workshops are funded projects.

70.599 Master's Research Paper (6)

Opportunity to employ accepted methods of educational research in the solution or intensive

study of some problem area of interest or concern. The research project must be related to the exceptional person.

Studies in Hearing Loss (Code 74)

74.490 Counseling Needs of Communicatively Disordered Individuals and Their Families (3)

Designed to help students identify counseling needs of communicatively disabled individuals and their families and to provide basic, short-term counseling. Students introduced to various counseling strategies in individual and group settings as appropriate to schools and speech and hearing clinics.

74.501 Introduction to Sign Language (3)

Involves a study of basic sign language vocabulary and fingerspelling techniques used in communication with deaf/hard of hearing individuals. Emphasis on developing proper expressive and receptive skills.

74.560 Student Teaching with the Deaf/Hard of Hearing I (3)

Provides an opportunity to work with deaf/hard of hearing children and/or adults. Emphasis on speech and language remediation of deaf/hard of hearing individuals. *Prerequisites: 74.564, 74.566, and 74.567 (concurrently)*

74.564 Speech for the Deaf/Hard of Hearing (3)

Study of the principles and techniques used in development and formation of English speech sounds by the synthetic and analytic methods with special consideration given to production, classification, and transmission of speech sounds. Supervised demonstrations and practicums are an integral part of the course.

74.565 Problems and Trends in Teaching the Deaf/Hard of Hearing (3)

Focuses on current practices and trends in education and welfare of the deaf/hard of hearing. Concerned with psychology, social adjustment, educational achievement, political and social viewpoints, learning problems, and vocational competence of deaf/hard of hearing. New techniques and methodologies.

74.566 Language for the Deaf/Hard of Hearing I (3)

Study of the principles and techniques used in the development and correction of language for the deaf/hard of hearing. Student familiarized with leading systems of natural language development designed for the deaf/hard of hearing. The step-by-step development of at least one language system is required for

each student. Supervised demonstrations are an integral part of the course.

74.567 Language for the Deaf/Hard of Hearing II (3)

Study of structured approaches to teaching spoken and written language, of language assessment devices and appropriate lesson planning. Supervised demonstrations and presentations are an integral part of this course.

74.568 Advanced American Sign Language (3)

Study of the expressive and receptive components of American Sign Language with an emphasis on communicating with the deaf.

74.569 Curricular Subjects for the Deaf/Hard of Hearing (3)

Examines practices, content, and methods of teaching school subjects to the deaf/hard of hearing with emphasis on content and methods rather than theory.

74.570 Student Teaching with the Deaf/Hard of Hearing II (6)

Evaluates hearing losses affecting the communicational, educational, and vocational adjustment of individuals through supervised observation, classroom practice, and practicum experience. Students are assigned to approved private and public programs for the deaf/hard of hearing and work with selected professionals in education of the deaf/hard of hearing, following the same schedules and assuming responsibilities similar to those of professionals. *Arrangements relating to student interest must be approved by program adviser. Permission of curriculum coordinator required.*

74.580 Independent Study and Research (3)

Permits students to work under close faculty guidance on library study of specified areas or individual research projects when particular needs cannot be met by registration in regularly scheduled courses.

74.581 Independent Study and Research (3)

See course description for 74.580.

74.584 Research in Education of the Deaf/Hard of Hearing (3)

74.599 Master's Thesis (3 - 6)

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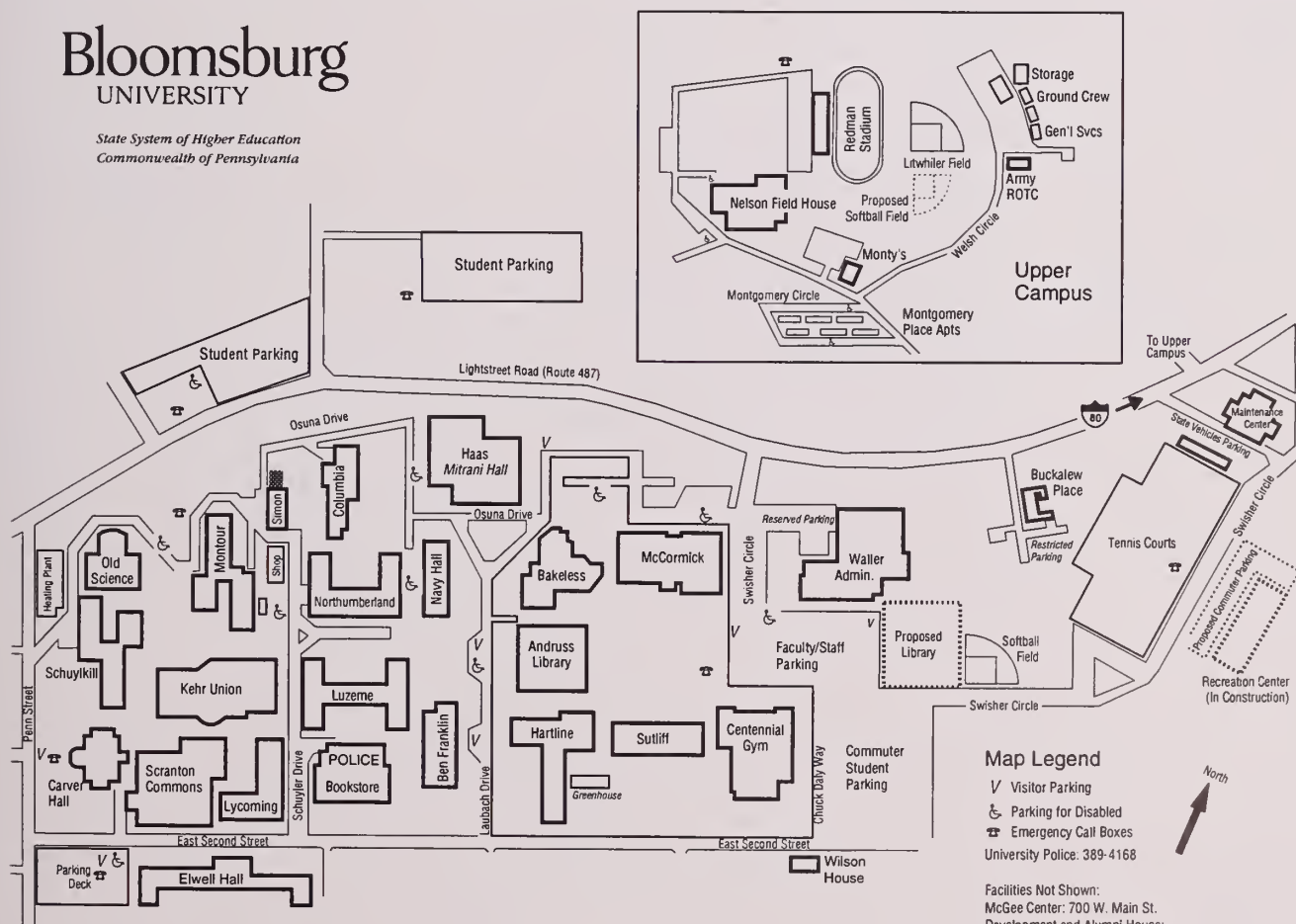
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Bloomsburg UNIVERSITY

State System of Higher Education
Commonwealth of Pennsylvania



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- Ⓕ Parking for Disabled
- ☎ Emergency Call Boxes
- University Police: 389-4168

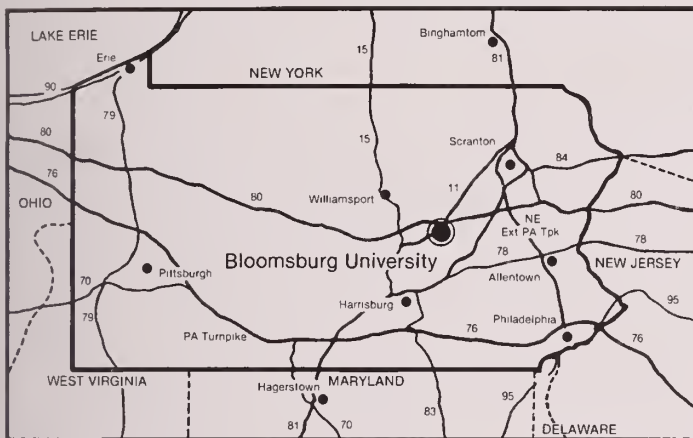
Facilities Not Shown:
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School of Extended Programs	(717) 389-4003



Bloomsburg University at a glance

Bloomsburg University, founded in 1839, is a public, four-year coeducational institution located in Bloomsburg, Columbia County, in north-central Pennsylvania. It is one of 14 member universities of the State System of Higher Education, Commonwealth of Pennsylvania.

Enrollment exceeds 7,500 students who may select from 65 majors offering studies in the basic liberal arts and sciences programs and business, educational and health care professions.

There are 18 master's programs and 11 supervisory certification programs for educators. Bloomsburg offers a 19 to 1 student-faculty ratio with 62 percent of the faculty holding doctoral degrees. About 70 percent of students receive financial aid. The average amount of assistance is \$3,300. Within the first year, 81 percent of Bloomsburg graduates are placed in employment. Graduates include a Nobel Prize winner in medicine.

Bloomsburg University is committed to providing equal educational and employment opportunities for all persons without regard to race, color, religion, sex, age, national origin, ancestry, lifestyle, sexual orientation, handicap, Vietnam era veteran, or union membership. The university is additionally committed to affirmative action and will take positive steps to provide such educational and employment opportunities.

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